

T H E
PRACTICAL GARDENER,
A N D
GENTLEMAN'S DIRECTORY,
F O R
EVERY MONTH in the YEAR.

Adapted to the New STILE.

AN ENTIRE NEW WORK.
C O N T A I N I N G
The latest and most approved METHODS
O F
CULTIVATING and IMPROVING
T H E

Kitchen, Flower, Fruit, and Physic Garden;
And for Managing

The VINEYARD and PINE-APPLE,
The Nursery, Shrubby, Green-house, and Hot-house.
With proper Directions for Raising MUSHROOMS.

To which is prefixed,

An ESSAY upon Vegetation, Soil, Manure, and the
Nature and Form of Stoves, Hot-beds, &c.

W I T H
A COPPER-PLATE, exhibiting at One View the several
Aspects for Planting a FRUIT-GARDEN.

B Y J A M E S G A R T O N

D U B L I N:

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B  L



TO GENTLEMEN and LADIES,
who delight in Gardening.

WE the underwritten, having been regularly bred to the several branches of Gardening, and practised that art for many years; and finding, upon mature consideration, that the book intitl'd *The PRACTICAL GARDENER* is compos'd upon such principles and experience, as, we apprehend, will enable the curious, either in the *Flower Garden*, the *Kitchen* or *Fruit Garden*, or in the management of the *Sbrubbery*, *Green-house*, *Hot-house*, *Vineyard*, &c. to make themselves sufficient masters of any of these branches; do, in justice to the AUTHOR's great abilities, and for public benefit, recommend this Book of Gardening to your particular regard and attention.

THO. HATHAWAY, *head gardener at the Charter-house.*

JOHN IVES, *late gardener to Fraser Honeywood, Esq;*

WILLIAM WHITE, *Nursery-gardener, at Mile End.*

JAMES KING, *at the Mulberry-tree, Bromley.*

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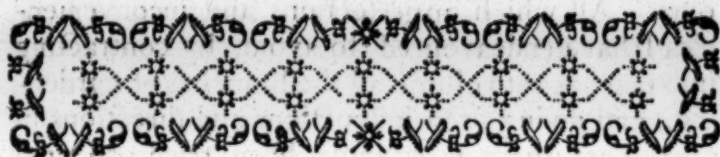
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T H E
P R E F A C E.

THE art of gardening never varies after it has once become national, though it varies in its form or mode, according to the fancy or humour of the times. And as this art has with its subjects greatly increased of late years; so have the instructions and treatises, written thereupon, been greatly multiplied. Many of which publications are large and voluminous; others no more than extracts from larger works; some again injudicious collections; and the best, confined to the management of some particular branches of gardening, or filled with disagreeable repetitions, calculated rather to lay a tax upon the buyer than to improve his understanding. So that in the multiplicity of writers upon this subject, the inquisitive person, that desires to be informed of the different methods to order his garden, is bewildered, when he meets with so many different rules and directions, and many of them taken upon trust from fabulous stories, and adopted from books written for other countries, whose cultivation,

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tion, as well as climate, differs very much from ours. All which imperfections and inconveniences I have endeavoured to avoid, by contracting into one pocket volume all the branches of gardening, and giving such instructions and directions in every part thereof, as have been tried and proved by the experience of more than thirty years practice; the book of nature being the best instructor in the cultivation of the earth.

Perhaps it may be hinted, that there are many things in this treatise, that have been well handled by others. Granted: but it is no disgrace for the best authors upon any subject, to avail themselves of the works of the learned, after they have examined, and found them deserving of credit. There is no reason, because a *Miller*, a *Hill*, a *Langley*, a *Bradley*, a *Switzer*, &c. have written copiously upon gardening, that there is no room for others to write upon the same subject; especially as it is an art every day improving by experience: and this treatise is compiled upon a plan, which has always been thought the most recommendable, as, *first*, to be sold at a low price: *secondly*, to be written in a plain stile, adapted to every reader, and *thirdly*, to lay down no instructions or directions, but what have been proved by long experience.

Consequently, here will be found several matters, that have not as yet been mentioned in the most celebrated writers on gardening, and many very useful and beneficial experiments, that were never made public, or at least with that perspicuity, before. For it is the Author's intention, not only to engage gentlemen of fortune and natural curiosity to adorn and beautify their country seats, with useful and ornamental gardens, but to
excite

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excite an emulation amongst the honest and plain countrymen, to improve theirs also for the advantage of their families, and for sale and public good.

(1.) For this purpose I have given certain observations and directions on soil, manure, vegetation, stoves, hot-beds, and the ways and means to force and ripen plants and fruits. With directions for watering of plants and for destroying worms and other insects, and for keeping gardens in good order, and for making gravel and grass walks, parterres, compartments, basons, &c.

(2.) In the *Kitchen Garden* there are certain directions for rearing and managing all pot-herbs, sallad-herbs, esculent or eatable roots, asparagus, mushrooms, melons, cucumbers, beans, and pease, during their proper seasons; and specifying which are in season in every month in the year.

(3.) The next care has been, after *food*, to provide *physic*: by giving a practical cultivation of such herbs, as sometimes are necessary in all families: for distilling and physical uses.

(4.) To this is added the *Nursery Garden*; where you will find the different methods of propagating trees: the times for budding and grafting, and the different methods of grafting: the fruits cultivated in Great Britain; and the stocks, on which they are to be propagated: with directions for sowing seeds for fruit-stocks: the different sorts of each kind of fruit, and the variety and culture of evergreens: also the variety and culture of flowering shrubs: and the work and labour to be done in a Nursery Garden, in every month in the year.

(5.) Here are practical directions for the management of the *Fruit Garden*, exhibiting the various

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ous aspects required for obtaining nice fruit : and directing the time and manner of planting fruit-trees, shewing in what kind of earth each sort requires to be planted ; and instructing how to prune fruit-trees, and particularly how to manage the peach and nectarine, the pear and apricot : the plum, apple and cherry, strawberries, barberries, walnuts, chestnuts, filberts, the quince, mulberry, and fig-tree : with some general observations on the fruit garden ; and on the planting and cultivation of a *Vineyard*.

(6.) In the *Skrubbery* you'll find the proper seasons for the blowing of each shrub, and the manner in which they are to be disposed and planted.

(7.) Then follow the monthly directions for the management of the *Green-house* and *Hot-house* ; in which there are particular instructions for the management of the *Pine-apple*.

(8.) Concluding with the *Pleasure* or *Flower Garden* : containg the art of raising annual, biennial, perennial, and abiding flowers, and all bulbous-rooted flowers, whether in the natural soil, or on a hot-bed. With a kalendar of the stock, produce, and work and labour to be done in the Flower Garden, in every month distinctly throughout the year.

From which plain account of the contents, I hope you will in some measure judge of the utility of this book of gardening, that comes now into the public, from one who has not only consulted the most approved authors and practitioners in the several branches of gardening here treated of, but has had great opportunities, for thirty years and upwards, to confirm theory by practice.

T H E



T H E I N T R O D U C T I O N .

Containing Observations on Soil, Manure, and Vegetation; Stoves, Hot-beds, and various Means practised for forcing and ripening PLANTS and FRUIT.

THE design of this work being not so much to *make*, as to *manage* a garden, *Design.* there is no necessity, it is not required, that we give any directions about the choice of the ground, or its situation and aspect, or exposure: but whether it be laid out or made upon the top of a hill, or on a descent, or on a flat piece of ground, there are some particulars that require great attention, in order to bring a garden to any kind of perfection; always paying some regard to the situation and aspect, and to the different parts or species of gardening; which we shall understand to consist of a *kitchen garden*, an *orchard*, a *flower-garden*, &c. in which are reared, by the skill of the gardener, (and his paying due attention to the nature of the subject to be cultivated, and to the peculiar means of cultivation) both *native* and *foreign* plants, trees, and flowers, to nourish the body, to please the eye, and to gratify the palate.

Howsoever your ground is circumstanced; in regard to situation, you must examine the *soil.* If you find, for the depth of four spades, a sufficient stratum of free, loose hazel earth, such as lies under the turf in the richest pastures, nature has supplied you with good vegetable mould. This mould ought to be three spades deep, or thereabout; because should the good soil be shallow, and have a bad bottom underneath,

erneath, the deep rooted growths will all fade, and grow poor as soon as they have reached through the upper coat of mould. Therefore, this is the first care of a gardener. A neglect on this head will always prevent the success of a garden.

It may happen that your land is clayey, or gravelly, full of flints and pebbles; or abounding with limestone, free, or other quarry-stone; or it may be sandy, the very worst of all soils.

How to be rectified. In order to correct these, the gardener by experience has found, that clay will be brought to a loam, by sand and a mixture of pasture mould; and likewise that sand is to be improved for use by clay; and that the best way to make a gravelly and stony soil useful in gardening, is to clear it of useless parts, and to raise it by a better soil or earth.

Yet bear this in mind, that clay is the worst ingredient that can come into a compost for a flower-garden: that it will always be predominant, mix them ever so well; and consequently, when all is done, such a compound earth will never be perfect. Gravelly soils are poor; and those of the stony kind are both poor and hot. And a kitchen-garden will never repay the labour and expence bestowed upon it, except it be well and properly recruited, in season, with dung.

It is a very proper method, when the ground is first dug for a kitchen-garden, to spread over it a good quantity of old cow-dung, wood-pile earth, pond-mud, and coal ashes; for these will mix in, when the ground is dug up for the several crops, and they will enrich it, with their salts, in a very proper manner.

As for the soil of the flower-garden, it depends so much upon the variety of the subjects introduced by our florists, that it is impossible to lay down any general rule for its preparation. The tulip, the ranuncula, the carnation, &c. severally delight in different soils; and therefore it will be best to refer to the methods,

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methods, which hereafter will be given for their cultivation.

Nevertheless, it will be expedient to give a general idea of the several kinds of manure. Thus, — hot and light

Several kinds of manure.

dungs are sheeps, horses, pigeons, &c. fat and cooling dungs are those of oxen, cows, and hogs.—The first sorts are proper for the improvement of cold, moist, and heavy lands: and the latter sorts for a light dry earth.

Horse and cow dung mixed, will do for most sorts of land. Some prefer the use of hogs dung; one load of which will go further than two loads of either of the other sorts; and it is esteemed the best for fruit-trees, especially apples and pears, when planted in a light soil.

Sheep and deers dung are excellent for a cold clay.

Pigeons, hens, and geese dung should lie abroad some time before used; and they are esteemed the best manure for asparagus, strawberries, and for most sorts of flowers.

No manure comes up to the sweepings of London streets. Malt-dust is a great enricher of barren ground. Oak-bark, after the tanners have used it, laid up in a heap and rotted, is an excellent manure for stiff cold lands; but care must be taken not to lay it too near the roots of plants, such as are bulbous rooted.

Street-dirt.

Rotten vegetables of most sorts, or their ashes when burned, do likewise greatly enrich land: and the weeds of ponds, lakes, and ditches, dragged out before they seed, and all other weeds cut down in flower, and laid up in heaps to rot, make a most excellent manure: always taking care in the rotting of vegetables to mix some earth, pasture mould, mud, or some other such like substance with them, and cover the heaps over with earth and dung.

Weeds, &c.

The refuse of a kitchen-garden laid up in heaps and rotted; fern mowed down young, and laid up in

the same manner to rot, make an excellent manure. Ashes of bushes, brambles, and all kind of vegetables, if kept dry until used, and spread upon the land in calm weather soon before a shower of rain, or well watered, will much lighten and enrich a heavy soil. Rotten wood, or saw-dust rotted; horns, bones, and other parts of animals and decayed fish, make extraordinary good manure: and sea-sand and shells are very good for a strong loam inclinable to clay. And prepare the compost for a cold clayey land in this manner: Take one load of sea sand, or any sandy ground, or other sand, two loads of rotten dung, three loads of natural mould, two loads of the top of a meadow, or other kind of rich turf land, taken a spit deep with the turf, and half a load of coal-ashes, or sweepings of streets, with a small sprinkling of sheep, pigeon, or other hot dung. Lay these heaps separate in a circular manner, leaving a large space in the middle; then place as many persons to each heap as there are loads in it, and let them throw the separate heaps into one large one in the middle, mixing it together, as equally as possible. This ought to be done in dry weather and in *May*; and then turn it once a month till *Michalmas*, when it will be fit to be screened into several sorts, that may be wanted: and let it be done in this manner:—For the first parcel, set the screen pretty upright, and what comes through the screen mix with one fourth part of a rotten cucumber, melon, or asparagus bed. For the second sort let the screen stand more sloping, and the remainder will be an excellent manure for kitchen-stuff, and improve a poor barren soil: or, by keeping the second sort a year in a heap, it will turn out as good as the first when screened.

For a loose sandy ground, the compost must be varied:—Take two loads of dung, three loads of natural soil or pasture mould, three loads of a strong loamy earth, three loads of pond mud, or the scouring of ditches; and order these in three different sorts, as directed before.

For

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For a stiff soil, inclinable to clay:—Take five loads of its own soil well broke and opened, five loads of ashes of heath-turf burned. Mix them all well together: let that heap lie all winter, and then sift it well: or, take a load of sharp sand, two loads of ashes of burned turf, fern, weeds, or wood-ashes, four loads of stiff soil well broke and opened. Mix this composition in *September*, and it will be fit for the screen and for use in the *February* following.

For stiff soil:—Take four loads of that very soil, two loads of rotten wood or weeds, two loads of burned grass-turf, and four loads of sand. Mix them in *October*, and this composition will be fit for use in the spring, when screened: or, Take two loads of stiff soil, two loads of rape seed (where it is to be had) after the oil is drawn off, four loads of sand, and two loads of burned turf or heath; and prepare these as directed in the other compositions: or, Take four loads of stiff soil, two loads of malt-grains after brewing, and four loads of sand; and prepare them likewise as before. This last mixture perhaps is the easiest to be made, and will greatly forward the growth of plants.

They that are not contented with any of these mixtures, will find a good compost by mixing, and properly keeping and preparing, as directed in the like cases, four loads of stiff earth, four loads of sand, and four loads of well rotted horse-dung, mixed with two loads of turf-ashes: and, also in a mixture of equal quantities of sheep's dung and wood-ashes, with a double quantity of loam.



A N

ESSAY UPON VEGETATION.

WHOEVER proposes to perfect himself in the art of gardening, must in the next place inquire into the art, whereby plants, &c. receive nourishment and growth: I mean to make himself a perfect master of the way of growth or increase of the parts, bulk, and dimensions proper to all herbs, plants, flowers, shrubs, trees, &c. which is called *vegetation*.

In this inquiry it will be proper to find which are the parts that vegetate; how they vegetate; and what is the nature and quality of each kind of soil, proper for that office: for, all organized bodies receive their increase from the reception and application of certain particles, which are designed, by the author of nature, for their nourishment; and as plants of all sorts belong to the class of organized bodies, they thrive in proportion to the quantity of nourishment they receive at their roots.

Parts that vegetate. We shall first inquire for the parts that vegetate; and here we find, that in some trees it is chiefly the root that vegetates. Thus, cut the *elm*, and many other trees, into a number of pieces, each piece will vegetate, or grow when planted in the ground.—In others, as the *willow*, we find the vegetation both in the root, and all over both trunk and branches: which if cut into a thousand pieces, it is scarce possible to destroy or kill them, unless they are stripped of both their barks; for if they are in the earth, but the length of three or four inches, they will put out roots and branches, and grow again.

The use of this principle of life is accounted to be for the concoction of the indigested salts, which ascend

ascend through the roots; where they are supposed to assimilate the nature of the tree they are helping to form. And these things being presupposed, in the spring of the year, as soon as the sun begins to warm the earth, and the rains to melt the hidden salts, the whole work of vegetation is set on foot, and the emulgent vessels seek for food, which nature has prepared for them. Hence we may truly infer, that the sun is the principle, and so may be called the father of vegetation; the earth, the mother; and the rain and air, necessary co-efficients in this surprizing work: as it is ingeniously described by that accurate writer *Malpighius*. "The ovum, says he, or seed of the plant, being excluded from the ovary, which is the pod or husk of the plant, and requiring fostering and brooding, is committed to the earth. The earth, like a kind mother, having received it into her bosom, does not only perform the office of incubation, by her own warm vapours and exhalations, in conjunction with the heat of the sun, but gradually supplies what the seed requires, to its better growth; as abounding every where with canals and sinuses, in which the dew and rain-water, impregnated with fertile salts, glide like the chyle and blood in the arteries, &c. of animals."

This moisture, meeting with the new deposited seeds, is strained through the pores or pipes *How.* of the outer rind or husk, answering to the secundine of the fœtus; on the inside whereof lie one or more, commonly two, thick seminal leaves, corresponding to the placenta in women.

The seed leaves, thus described, consist of a great number of small bladders, with a tube corresponding to the naval-string in animals. Into which bladders the moisture of the earth, after it is strained through the rind of the seed, is received, and causes a slight fermentation with the proper juice before contained therein. And this fermented liquor is conveyed by the tube, or umbilical vessel, to the trunk of the

plant, and to the gem or bud, which is sprouting from it; upon which a vegetation and increase of the plant succeed.

Vegetable matter. Let us now inquire into vegetable matter, or the nature and quality of the soil for that purpose. The learned are not agreed about the food where the plants grow, or on which they feed. The moderns have generally patronized the opinion, that the vegetation, both of plants and minerals, is principally owing to water: which, say they, not only serves as a vehicle, to convey to them the fine rich earth, &c. proper for their nourishment, but being transmuted into the body of the plant, affords the greatest part, if not all the matter, with which they are nourished, and by which they grow and increase in bigness.

Dr. *Woodward*, in the beginning of this century, communicated many experiments to the Royal Society in support of this doctrine: but we cannot allow all the pretensions in this case; for it can be proved, beyond contradiction, that water distilled, and thereby deprived of its earthy particles, which are destroyed by the fire, conveys no nourishment to plants; whereas, in its natural state, water is impregnated with a certain vegetable matter, apt and disposed to attend the fluid in all its motions, and so fine and light as to follow it into all its recesses, as appears from many instances: for, percolate water with all the care imaginable, filter it with ever so many filtrations, yet some terrestrial matter will be found in it. Dr. *Woodward* informs us, that after he had filtered water through several sheets of thick paper, and then through a very close fine cloth twelve double, and this repeated over and over, a considerable quantity of this matter discovered itself after all in that water.

From whence we draw this obvious inference: if the vegetable matter thus passes through interstices, that are so very small and fine, along with the water in the filtration, we have no doubt, but that the said
matter

matter will attend the water in its passage through the ducts and passages of plants. Nay, I will take upon me to affirm, that the more the vegetable matter is subtilized or refined by filtrations, it becomes more fit to be conveyed by the fluid, and more proper to nourish and promote the growth of vegetables and plants of all sorts; as may be exemplified in rain-water, which is always preferred in the watering of plants. The quantity of terrestrial matter it carries up into the atmosphere is not great, but what it doth bear up is chiefly of that light kind, or vegetable matter, perfectly resolved, and reduced to single corpuscles, all fit to enter the tubes and vessels of plants.

Hence it is, that in agriculture, be the earth ever so rich, good, and fit for the production of corn, or other vegetables, little will come of it, unless the particles be separated and loose. It is on this account so much pains are taken by the husbandman and the gardener, in digging, tilling, ploughing, fallowing, harrowing, and breaking the clodded lumps of earth; and it is the same way that the sea-salt, nitre, and other salts promote vegetation.

It is also evident to observation, how apt all sorts of salts are to be wrought upon by moisture; how easily they run with it; and when these are drawn off, and have deserted the lumps, with which they were incorporated, they must moulder immediately, and separate of course.

The like observation holds good in regard to lime. It does not fatten, but only mellows the ground; or, in other words, lime does not contain any thing in itself that is of the same nature with the vegetable mould, or afford any matter fit for the formation of plants; but serves merely to soften and relax the earth, and by that means rendering it more capable of entering the seeds and vegetables set in it, in order to their nourishment, than otherwise the earth would have been.

Therefore we infer, if the soil, in which any seed or vegetable is planted, contains all, or most of the ingredients, and those in due quantity, it will grow and thrive, not otherwise; neither will it prosper if there be not as many sorts of corpuscles as are requisite for the constitution of the main and more essential parts of the plant. If there be the ingredients, but not a sufficient quantity of them, the seed or plant will never arrive to its natural stature; or, if any of the less necessary and essential corpuscles be wanting, there will be some defect in the plant, either in the smell, taste, colour, or in some other quality.

The mystery is, how one uniform homogeneous matter, having its principles, or original parts, of the same substance, constitution, magnitude, figure, and gravity, should constitute bodies, so unlike in all those respects, as vegetables of different kinds are; nay, even as the different parts of the same vegetable; that one should carry a resinous, another a milky, a third a yellow, and a fourth a red juice in its veins; that one affords a fragrant, another an offensive smell; that one should be sweet to the palate, another acid, or bitter, &c. that one shall be nourishing and salutary, another poisonous; that one shall be astringent, another purging; and yet, these all receive their nourishment from the same soil. However, it is found, that the soil, once proper for the production and nourishment of some sort of vegetables, does not continue so perpetually, but in tract of time loses its property, sooner in some lands, and later in others. For example, wheat sown upon land, prepared and made proper for that grain, we find that the first crop succeeds very well; and so on for a second and third crop, if the land be in good heart. But in a few years that land will produce no more of that kind of corn; though it may yield barley, and after that oats or peas; till at last the ground becomes barren; for each sort of grain having exhausted the peculiar matter that is proper for its nourishment, the vegetative
matter,

matter, which at first it abounded with, is reduced by the successive crops, and most of it is borne off; and it will never be brought to bear those or any other sort of vegetables, till it has been restored with a supply, or another fund of matter of the like sort with that it first contained, either by the ground's lying fallow for some time, till the rain hath poured a fresh stock upon it, or by cultivating and manuring it.

In like manner, it is to be observed in gardening, that where trees, shrubs, and herbs, after their having continued in one station till they have exhausted the greatest part of the matter fit for their increase, will decay and degenerate, unless either fresh earth, or some fit manure be applied to them.

These instances evince, that plants owe their increase not to water, but to a particular terrestrial matter; for, were it water only, there would be no need of manure, or changing the species. The rain falls in all places, and every season: therefore were we to look for the principle of vegetation in the water only, we could assign no reason why a tract of land should yield wheat one year and not the next.

Heat is also necessary in vegetation; and as the sun's power gradually decreases in autumn, we also find its effect upon plants is lessened, and vegetation slackens by degrees; as will be more discernible, if we look upon the trees at that season. They, being raised highest above the earth, require a more intense heat to elevate the water charged with nourishment to their tops; but when that support and nourishment decay, they shed their leaves, except in some cases, as the ever-greens, which have a very firm and hard constitution. Next the shrubs part with their leaves; then the herbs and lower tribes; the heat at length not being sufficient to supply a sufficient nourishment even to these, though so near the earth.

Not only the heat in the different seasons affords us a different face of things; but the several distant climates shew the different scenes of nature and productions

tions of the earth. The hotter countries generally yield the largest and tallest trees, and those too in a much greater variety than the colder; and even those plants, common to both, attain to a much greater bulk in the southern than in the northern climates. Some regions are so cold that none of their vegetables grow to any considerable size. In *Greenland*, *Iceland*, and other parts of the like cold situation and condition, there are no trees; and their shrubs are low, little, and poor.

In the warm climates, where the land is well stocked with fine trees, and large vegetables, their production is impeded in proportion to any remission or diminution that shall happen of the usual heat. We need look no further than our own country; for in some years, though there may be heat sufficient to raise the vegetative matter into the lower plants, as wheat, barley, peas, &c. and we may have plenty of straw-berries, rasp-berries, goose-berries, currants, and the fruit of such vegetables as are low, and near the earth, and a moderate store of cherries, plums, &c. and some others which grow a greater height; yet our apples, pears, peaches, nectarines, grapes, figs, and the productions of warmer climates, shall be fewer, and those, perhaps, not so thoroughly ripened, and brought to that perfection, as they are in, when blessed with a more benign season.

Nor is it that heat only which promotes vegetation, but any other made by art, according to its power and degree; as we find in hot-beds, stoves, &c. And by rightly adapting these artificial heats, the *English* gardeners have of late years so much improved their art, as in a great measure to supply the want of autumnal heat, and to vie with the people who inhabit countries several degrees southward of *England*, in the early produce of esculent plants, and the accelerating and ripening the fruits of the warmest climates. And as the knowledge of vegetation is improved, and the practitioners of the art are better acquainted

quainted with the theory, there is room to expect that this useful art will be further extended and improved; therefore it is highly necessary, that the theory of vegetation should be studied by every person who proposes to make any figure or proficiency in agriculture and gardening.

From these observations on vegetation, we are naturally led to consider the methods of making, and the use, and the effects of the artificial heats introduced into the art of gardening; whereby we not only preserve our trees, plants, and flowers from the injuries of the inclement seasons, but rear almost every thing in the vegetative creation, that are natives of the hotter climates.

Of STOVES or HOT-HOUSES.

Stoves are contrived to preserve such tender exotick plants, as will not live in these northern climates, without artificial warmth, in winter; and they are built in different ways, according to the ingenuity of the artist, or the different purposes for which they are intended: but at present they are generally constructed upon one or other of the following plans:

The first is called a *dry-stove*, because the heat or smoke is conveyed or supplied by flues, that are carried either under the pavement of the floor, or else are erected in the back part of the house, over each other, and are returned six or eight times, the whole length of the building, according to the height. In these stoves the plants are placed in pots upon shelves, that rise gradually behind each other, in the form of the seats at a theatre or play-house. By which method they enjoy the greatest benefit of light and air. And in these stoves the gardener places the tender sort of aloes, ceruses, euphorbiums, tithymals, and other succulent plants, which are impatient of moisture in winter, and therefore ought not to be kept among trees or herbaceous plants, which perspire freely,

freely, and thereby cause a damp air in the house, which is imbibed by the succulent plants, to their prejudice.

These stoves ought to be regulated carefully by a thermometer, so as not to over-heat them, nor to let the plants suffer by cold; in order to which all such plants as require nearly the same degree of heat, should be placed by themselves in a separate house; for if in the same stove there are plants placed of many different countries, which require as many different heats, some plants that do not require so great warmth would be drawn and spoiled, by making the stove or house warm enough for some others.

The other sort of stove is called the *bark-stove*. This house should be built upon a perfectly dry ground, open to the meridian sun. These *bark-stoves* have a large pit, nearly the length of the house, three feet deep, and six or seven feet wide, in proportion to the breadth of the house; which pit is to be filled with fresh tanner's bark to make a hot-bed; and in this bed the pots of the most tender exotic trees and herbaceous plants are plunged. The heat of this bed being moderate, the roots of the plants are always kept in action, and the moisture detained by the bark, keeps the fibres of their roots in a ductile state; which in a dry-stove, where they are placed upon shelves, are subject to dry too fast, to the great injury of the plants. Thus we are enabled, when these bark-stoves are rightly contrived, to preserve the most tender exotic trees and plants, which, before the use of the bark was introduced, were thought impossible to be kept in *England*.

There is no certain rule for the dimensions of these stoves; that must be determined by the pleasure of the proprietor, and the number of plants intended to be kept therein; but their length should not exceed forty feet, unless there are two fire places; and in that case it will be proper to make a partition of glass, and to have two tan-pits, in order to have two dif-

ferent

ferent degrees of heat to suit plants brought from different climates; or these two stoves may, with great propriety and advantage to the contents, be made in one, and divided only by glass partitions

If these stoves are erected upon a moist situation, the whole should be placed upon the top of the ground, with brick-work three feet above the surface; which, being at the depth of the bark-bed, will keep it dry; whereas in a dry soil, there only wants one foot of brick-work above the surface, because it will allow to dig a pit two feet in the ground for the bark

As for the manner in which this house is to be built, it will be only necessary to observe, that a plate of timber must be laid upon the brick-work; into which the wood-work of the frame is to be mortised, placing the upright timbers four feet at least distant from each other, which gives the proportion of the glass sashes; and they are to be eight or nine feet long. From the top of these should be sloping glasses, to reach within three feet of the back of the stove. The wall in the back of the stove must be two, or two bricks and half thick; by which means the heat will be thrown more to the front. And to this wall the flues, through which the smoke is to pass, must be joined. The height of this wall must be in proportion to the height of the front; so that there be a sufficient declivity to the sloping glasses to carry off the wet.

Let the house be fifteen feet wide; which divide in this manner: Two feet for a walk within the front; a tan-pit, nine feet wide; another two feet walk behind the pit; then there will be two feet left next the back-wall, for erecting the flues, which must be raised above the level of the bark-bed, and be one foot wide in the clear; the lowermost, into which the smoke first enters from the fire, should be two feet and half deep in the clear, covered with tiles a foot and half square, so as to extend over the wall in front of the flues, and take sufficient hold of the back wall;

over

over this the second flue must be returned back again, twenty inches deep, and covered as before. In this manner the flues may be returned as often as the space and convenience will allow, to spend the heat before the smoak passes off. Their walls need be no more than four inches in front; but the bricks must be well-bedded and jointed; their insides pergitered, and not only faced with mortar on the outside, but covered, as coppers are, with a coarse cloth to preserve the mortar from cracking, and to prevent the smoke penetrating through, which would destroy the plants.

The fire-place must be made at the end; or at both ends if it be a very long stove: and the furnace must be contrived according to the fuel to be used. This furnace must be made within the house, with an iron door to shut very close, and just big enough to admit the fuel, placed near the upper part of the furnace, which must be about twenty inches deep, and sixteen inches square at bottom; but so sloped off on every side, as to have two feet square at the top. Beneath is the ash-hole, about one foot deep and as wide as the bottom of the furnace, with an iron door to shut as close as possible. Just over the ash-hole, above the bars which support the fuel, should be a square hole, about four or six inches wide, to let in the air to make the fire burn; which also must have an iron frame, and a door to shut close, when the fire is perfectly lighted. The top of the furnace should be nearly equal to the top of the bark-bed, that the lowest flue may be above the fire, so that there may be a greater draught for the smoke; and the furnace should be arched with brick.

The inside of the house should be clean white-washed, in order to reflect the light, which will be of great consequence to plants; and the outside should be well guarded against storms of rain, hail, and snow, and against frost, by wooden shutters, or tarpawlines in frames, to cover the sliding glasses when needful.

As

As in these stoves, are plants brought from the hottest parts of the east and west *Indies*, the heat should be kept equal to that marked *anana* upon the botanical thermometers, or within eight or ten degrees thereof; nor should the spirit be raised above ten degrees higher in the thermometer during the winter season. And in order to judge more exactly of the temper of the air in the stove, the thermometer should be hung not only at a good distance from the fire, but the tube must not be exposed to the sun. Hang it as much in the shade as possible; for one single hour sun-shine upon the ball of the thermometer will raise the liquor in the tube considerably above the real warmth of the stove.

As to the management of the plants placed in the bark-bed, there must be a particular regard had to the temper of the bark, and the air of the house, so that neither of them be too violent; and as they are placed in continual warmth, which causes a free perspiration; they must be watered frequently, (though sparingly in cold weather) otherwise their leaves will drop off.

The *dry-stove* is most commonly built with front glasses running from the floor of the cieling, and so by sloping to an angle of forty-five degrees, the better to admit the rays of the sun in spring and autumn. But Mr. *Miller*, in his dictionary, prefers that sort which is built after the model of the bark-stove.

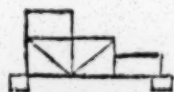
If the situation of the dry-stove be wet, raise the floor three feet above the level of the ground; which need not be more than two feet when the land is dry. The flues to be about eighteen inches square in the clear, and carried under the floor with serpentine windings from a surface, erected at one end of the house, and in such a form as to reach from the back to the front of the house. The spaces between the flues should be filled up with sand. The flues to be well plastered both within and without; and the upper part well covered with a coarse cloth. These
flues

flues should be covered with broad tiles, and then a bed of sand two inches thick, and then the plain tiles for the floor

If the furnace be placed under the floor, then the thickness of the sand between the brick-arch, which covers it and the floor, should not be less than four or six inches.

The plants in this stove must be ranged on shelves

or a stage, made in this form,



always

taking care not to set the feet upon the top, or too near the flue; but in the middle of the house, with a way two feet and half, both behind and before it.

It would be of great service to join these stoves together, with only glass partitions between them. And if several stoves and green-houses be required in one garden, it will be proper to have the green-house in the middle, and the stoves at each end.

It will be necessary also to have a glass-case or two, where there is a great collection of plants. And they may be built exactly in the same manner as the stoves, at each end of the stoves. And if there be a flue carried on round each of these, with an oven to make a fire in very cold weather, it will answer every purpose in severe frosts, provided they have shutters or tarpawlines to cover both the upper and upright glasses. But never use the flue, except on extraordinary occasions; because in these houses are to be kept such plants as require only to be preserved from frost, and need no additional warmth; yet require more air than can be conveniently given to them in a green-house.

In one of these houses may be placed all sorts of *African* sedums, cotyledons, and other succulent plants from the *Cape of Good Hope*. In the other place the several kinds of *arctotis*, *osteospermum*, *royena*, *lotus*, and other woody or herbaceous plants from the same country, or any other in the same latitude.

The

The stoves already described, are calculated for the preservation of exotic plants, which cannot live in *England*, unless they enjoy a temperature of air, approaching to that of their respective countries, from whence they are brought. But the most common stove is that our gardeners use for the culture of the *ananas* or *pine-apple*.

The length of this stove should be in proportion to the number of fruit desired in one season. The tan bed should never be narrower than six, nor more than eight feet wide; with a foot-walk on each side. Such a stove requires only one fire.

The stoves for ripening *ananas* have upright glasses in their front, so high as to admit a person to walk upright under them. Over the upright glasses there should be a range of sloping glasses, which must run to join the roof, which must come so far from the back-wall as to cover the flues and walls behind the tan-pit.

The stove designed for raising of young plants, until of a proper size to produce fruit, need not be built so high as the former, nor have any upright glasses in front; but the frames may be made in one slope. In dry ground, the tan-pit may be sunk two feet deep in the ground, and raised one foot above the surface. But where there is wet, or danger of water, make the tan-bed totally above the level of the ground.

Of HOT-BEDS.

The next auxiliary to vegetation in our northern climates, is the use of *hot-beds*. By this simple means we are enabled to rear many products of warmer climates, and in *England* the table is furnished with the several products of the garden, during the winter and spring-months, better than they are in any other country in *Europe*.

The *hot-bed* in common use is made in the following manner: in a place well exposed to the sun, under

der a wall, and sheltered from the east and south east winds, dig a trench; in a dry ground, a foot deep, and, in a wet soil, six inches deep; the length and breadth proportioned to your frames; four feet is the usual breadth; drive in stakes round it, a foot distant, and a yard in height above the bottom of the bed, and wind round the stakes hay or straw-bands, from the bottom to the top; then take a quantity of fresh horse-dung and wet litter, mixed with a little sea-coal ashes, and throw it in a heap for a week. If you make them early in the year, allow a good load for each light. In the filling up the bed, stir every part of the dung with a fork, and lay it exactly even and smooth, and tread it down three several times, to be of an equal hardness; then lay the bottom of the heap on the surface, and smooth it with a spade; then cover the dung, three or four inches thick, with good earth, which should be sifted and very rich, such as an old well-rotted hot-bed. Then put on the frames and glasses; and, for a week, cover the glasses with mats, &c. in the nights, but in the day raise the glasses, to let off the steam. You will find when it is fit for your purpose, by thrusting a stick a good way into the bed; let it stay in some little time, then draw it out, and feel it with your fingers; which ought to be warm, but not burning hot. As the heat abates, increase the coverings; and when it gets coolish, put a pretty good quantity of new hot dung round the sides of the bed; and as the spring advances, lay some mowings of grass round the sides of the bed, especially if the nights prove cold. The thicker the earth is laid on the hot-bed, the less the fumes of the dung will arise.

Fern, whilst young and tender, being chopped pretty small, and laid in a heap to ferment, may be used for hot-beds; and it is said, will continue its heat for many months.

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ding in the middle; covering the whole with light rich mould, will force up a fallad in a few hours.

Frames of hot beds may be made with strong wires at bottom, crossing each other pretty close, to hold a bed of earth four inches deep, so that the whole may be lifted from one hot-bed to another, by four men, as there is occasion; by which means the plants will come on forwarder than if they are transplanted; and, when the heat of the bed is too violent, the frame may be placed hollow over it; and when the heat abates, it may rest upon the bed; and, when the bed grows cold, it may be carried to another fresh bed.

A *fire hot-bed* may be made of what length you please, but of the same breadth of a common one; and at one end, make a fire-place to pass into a flue, which is to wind from side to side till it reaches the other end, and discharges the smoak up a chimney: cover the tops of the flues with square tiles, and fill up the spaces betwixt with coarse sand, and cover over the whole with squares tiles; then raise a wall round the bed, about ten inches above the pavement, so that you may cover the pavement with sand as deep as you please, according to what occasion there is for it: then place on the frames and cover it with earth.

A *bark hot-bed* is much more preferable than any other, especially for all tender exotic plants and fruit. In a dry ground, dig a trench three feet deep; if the soil be wet but one foot, and raise it two feet above ground. The length should not be less than eleven or twelve feet, and the breadth not less than six feet. If the bed is made seven feet wide, the depth need not be more than two feet and an half. Each bed commonly contains three lights. The trench should be bricked up round the sides, and fill the same with fresh tanners bark, such as is lately drawn out of their vats. The small sort will heat soonest, but then it loses its heat in a small time. The large for tis
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often violent in its operation, and continues its heat a long time. There should be a proper mixture of each sort, as you would have your beds work : for a moderate heat, use very little of the large sort ; and, to have a greater heat, increase the quantity of the large bark. Ground bark is preferable to chopped ; but, where this cannot be had, mix with the chopped bark a quantity of bran, saw-dust, or chaff ; and, whenever the heat abates, stir up the tan from the bottom of the bed, and add some fresh bran, saw-dust, &c. Before it is used, lay the bark in a round heap for three or four days ; then beat it gently into the trench with a dung-fork ; it must not be trodden ; then put on the frames and glasses ; and, in about ten days or a fortnight, it will begin to heat ; then you may plunge your pots of plants into it. If the bark be new, and not ground too small, the bed will continue in a good temper for six months ; and, when the heat declines, stir up the bark pretty deep, and mix a load or two of fresh bark with it, which will preserve the heat two or three months longer. Some persons put hot dung under the bark to make it heat sooner ; but this is not to be recommended, unless the bed is wanted before it will heat of itself, and then lay but a little. If the beds are for pine-apples, the frames should be on the back part three feet high, and in the fore part fifteen inches high ; otherwise of the dimension of the kitchen hot-bed frames, which are fourteen inches on the back, and seven inches high in front. Those beds which are made in stoves seldom want renewing oftener than twice a year, that is the beginning of *March* and end of *September* ; but then take not the bark quite out, but the upper part, which is generally the most consumed, should be thrown out, and the other mixed with fresh tan. And all plants which are permitted to root in the tan, through the hole in the pots, will thrive more in one month than in four, if they are only confined in the pots.

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Of HOT-WALLS by Fire for early Fruit. 23

Bark-beds, made for melons and cucumbers, should be entire new tan, laid in a heap for a fortnight or three weeks before the bed is made; and, a week after this, you may place the plants in the bed, being first raised in baskets; and round the holes wherein the plants are placed, should be old tan for the plants to root in, after their roots have extended through the earth laid in the holes. These beds are much more preferable than those made of horse-dung for this purpose.

Of HOT-WALLS by Fire for early Fruit.

Vines should have a particular wall by themselves, as they require a greater share of air than other fruit when they begin to shoot. There should be only one-third part of the wall forced at one time; and contrive the glasses to move from one part to another. The foundation should be four bricks and a half thick; and six inches above ground should be the bottom of the first flue; then reduce the walls to three bricks and half, by setting off four inches on each side. The wall next the fruit should be only four inches thick, and the back wall two bricks thick. The flue nine inches wide, and covered with square tiles of ten inches. The ovens for the fires should be made on the back, in number according to the length of the walls. The length of each fire forty feet, but will do very well for fifty feet of wall. The ovens should be shedded over, to keep out the wind and rain; and, as they are below the first flue, there should be steps down into them: and, where the length of the wall requires two fires, it is best to have them in the middle, included in one shed; and the door should not open against the mouths of the ovens: the fire-places should have a wall two bricks thick between them; and the ovens should be made as those directed for stoves. Let the lower flue be two feet and half deep; the second, which returns over it, two feet; the third flue one foot and a half; and

Bark-

24 *Of HOT-WALLS by Fire for early Fruit.*

and the fourth one foot deep. Some strong iron hooks should be placed at proper distances, to project two inches from the wall, to fasten the trellace to it; they should be laid just under the tiles which cover each flue, at three feet asunder, and fastened into the back of the wall. The flues should be well plastered with loam on the inside, which should likewise be spread under the tiles to the thickness of the hooks, so that the flues may be smooth. Cover the flues on the side next the trellace with some coarse cloth, such as is directed for the stoves; and, at each end of these flues, small arches should be turned at the back of the wall; where holes may easily be made, to take out the soot as they require. The borders in front may be five feet wide; and, on the outside of them, build walls four inches above the level of the border, on which the plate of timber should be laid for the sloping glasses to rest on. There should be two ranges of glasses, each about six feet long, and three feet or a little more wide: the upper row should slide down; and on one side, in the wood-work, should be made three small holes, a foot distant from each other; and, by the help of an iron pin, the glasses may be let down to give air as occasion requires: let the lower row of glasses be contrived so as to take out. The sloping timbers, to support the glass-frames, may be fastened at bottom into the ground-pane; and, at the top, into strong iron cramps in the upper part of the wall; and a strong board should be fixed on the top, under which the upper row of glasses should run; which should be joined as close as possible to the wall, and project about two inches over the glass-frames. The bars of the frames should be placed long-ways, the lead-work should be broad, and the joints well cemented. At each end of the frames there should be glass-doors, that, when the wind is full against the front of the wall, one or both of them may be opened. The frames, nor no part of the wood-work, need be made 'till the trees are strong enough to be forced. The
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HOT-WALLS *for the Ripening of FRUIT.* 25

middle or the end of *January*, according to the season, begin the fires; and end with them about the beginning of *May*.

HOT-WALLS *to assist the Ripening of FRUIT at their proper Season.*

These need not be covered with glass but for a small part of the wall, and the rest may be made of oiled paper, for the frames will not be wanted longer than from the beginning of *February* to the end of *May*; but then take them away by degrees, so as not to expose the trees too suddenly. If the autumn proves cold, or very wet, before the fruit be ripe, put the covers over the trees, and make some slow fires. Trees may be thus forced every year without injuring them; for there is seldom any occasion to continue the fires in the day-time. See more of this in the *hot-wall* for the ripening of grapes.

How to have early FRUIT by forcing the Trees with Dung.

A wall may be built ten feet high, and the length sufficient to contain trees for three years forcing. Let the frames be made so, that when the first part of the wall hath been forced, it may be removed to the next; and so on, that the whole length may be forced once in three years. The distance of the trees eight or nine feet; and furnish the higher part with stone fruit-trees and vines, and the lower part with gooseberries, currants, and roses. Some persons, instead of walls, use pales about five feet high, of deal boards an inch thick, and well joined together, to prevent the steam of the dung from coming through; and on the south side, they make a border four feet wide, and, from the edge thereof, the glasses are to reach to the top of the pales; but, if this slope is thought too great, you may have a line of deals on the top of the pales, to project their
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whole breadth over the trees ; and let the tops of the glass frames fall in an inch or two under them ; and at each end make a door. There should be a thermometer kept in the frame. Plant the roots of the trees quite close to the pales, and at four or five feet distance. The pruning is much the same as against common walls ; the time for it is a fortnight or three weeks before the hot dung is applied ; and nail every branch as close to the pales as possible. Here and there, in the border, may be planted a few *Muscovy* raspberries, and strawberries, though the last may be raised on a hot-bed ; and you may have a few tulips, narcissuses, hyacinths, and some other flowers ; with pease, beans, fallads, &c. The peaches are the *avant*, *Albemarle*, *Anne*, *Newington*, and *brown nutmeg* ; nectarines, *Fairchild's early*, *Elruge*, and *Newington* ; apricots, the *masculine* ; cherries, *May* and *May duke* ; Grapes, *black* and *white sweet water*, *Marlmorse*, and *black Morillon* ; gooseberries, *Dutch white*, *early green*, and the *walnut* ; currants, *Dutch white* and *red*. Trees should be well grown before they are forced ; and such as have stood seven or eight years against walls, may be removed for this purpose. Plant the forward trees together, and such as come later by themselves. If the walls or pales be finished in summer, you may then plant your trees ; though some think it best to do it at *Michaelmas*. Let the trees receive gentle showers of rain, in tolerable mild weather, 'till the buds begin to stir ; then the glasses must be constantly kept over them 'till the sun begins to have some power. When the sun shines warm, and the wind is not too sharp, open the doors on each end ; but, if this does not happen in a fortnight, then open the doors, and hang mats or canvases over the doorways. Some of the glasses should be opened in the morning in *March* and *April*, when the sun is warm and the wind still ; and, whilst the fruit is growing, let it receive some gentle showers ; but, whilst the trees are in blossom, no rain should come near them. The dung is to be applied to the back of the pales,

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Of WATER, WORMS and other INSECTS. 27

the beginning or the middle of *November*, which should be first tossed up in a heap for some days; then lay it four feet wide at bottom, and two feet thick on the top, to within four inches of the top of the pales; in six weeks it will sink three feet, then add some fresh. Three changes of dung will be sufficient; letting each parcel lie a month, to ripen cherries; but, if *April* proves cold, it must be continued 'till *May* for plums, peaches, &c. The glasses should be put on as soon as the trees are pruned.

Of WATER, and the Times of watering PLANTS.

The best for garden-use is pond-water exposed to the sun. Rain-water is next esteemed, and next to that river-water. If you have none of these, and are obliged to use water from a spring, let it be kept some time before used, in tubs exposed to the sun. Whilst the nights are frosty, water your plants in the morning; in warm weather, water them in the evening, before the sun goes down. Always hold the spout of the pot as near the ground as possible. Let the earth be loose and open round the roots of the plants. Avoid wetting of their leaves as much as possible. All plants in their growing season should never want water, especially at the time of their blossoming; but give them only a little at a time, and repeat it often. Let not the sun reach the plants 'till two hours after they were watered in a morning.

How to destroy WORMS and other INSECTS, with some general Rules to be observed in GARDENING.

ANTS may be enticed from their holes, by dew-worms cut into small pieces and strewed in proper places; then they may be easily destroyed by pouring of boiling water on them from a water-pot.

CATERPILLARS should constantly be picked off from trees and plants before they leave their nests, when a great many may be destroyed at a time.

28 *How to destroy WORMS and other INSECTS, &c.*

EARWIGS may be caught in oxes hoofs, or in bowls of tobacco-pipes, placed on the tops of the sticks, which support your carnations, and then killed.

GRUBS may be taken by looking over the plants every morning, and where you observe any of them eat, stir the ground an inch deep round the place with your finger, and you will readily find them out.

SLUGS, amongst pease, may be destroyed early in a fine morning, when mild weather, by strewing of some flaked lime pretty thick over the ground; do it whilst the lime is hot, but don't scatter it too thick on the pease.

SNAILS, and **SLUGS**, may be best prevented from doing mischief by wrapping of a hair-line round the stems of a tree three or four times, and fasten the rope all round the branches of the tree close to the wall. Let the hair in these lines be pretty short. To guard espalier trees, wrap the lines round their stems near their roots, and also round the bottom of every stake. This work should be done in the winter. To guard beds of plants, flowers, and herbs against them, fasten the lines two or three times round the borders. You should also kill them wherever you find them.

TIT-MOUSE, or **TOM-TITS**, should be carefully destroyed; and the best way to do it is to catch them with bird-line.

TRAPS to catch vermin, should be placed in the month of *December*.

WASPS are best prevented from doing mischief by placing phials of honey and ale near your fruit-trees, and replenish the bottles once a week; and when you take out the insects be sure to bruise them well.

WORMS are destroyed by steeping walnut-leaves for three weeks in water, and then pour the same on the ground; the bitterness of which will cause the worms to come out of their holes, and then they may be easily picked up and destroyed. You may also
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How to destroy WORMS and other INSECTS, &c. 29

pick up numbers of them in a summer's evening after rain. You may also in a dry season take lime, brine, and pot-ashes, and decoct these well in water ; then strew the same on your walks and grass-plats. Or you may make a decoction pretty strong of tobacco-refuse, and pour that on the ground as mentioned before ; this will also destroy weeds, and entirely cure your gravel-walks, and keep them free from weeds for some years.

Untried earth, from a common or pasture, is esteemed better for a kitchen-garden, and fruit-trees, than any composition made of dungs.

To clear a garden from noxious weeds, lay the ground fallow all summer, by digging it over two or three times in the greatest heats.

Old trees, which shoot stronger branches at the bottom than towards the top, if the top be sickly should be cut off ; but, if the top be healthy, cut off the lower ones, unless a few, which are well-placed.

Old trees in a weak condition, may be preserved by almost totally disburthening them ; and only leave a very few branches, and those should be shortened to five or six inches each.

Hoe always in dry weather, that the weeds may be so dried up as to be unable to strike root any more.

Manure should be carried into the garden in frosty weather.

Pipes, and stone-work of fountains, should be covered in frosty weather with stable-litter.

Plant always in wet weather, and sow in moderate dry weather.

Plant no tree or plant in the same ground, where others of the same sort grew immediately before ; and be always careful in endeavouring to vary the sorts as much as possible.

Seeds when sown, should have a regard paid to their size, so as the large one be buried deeper in the earth than the small ones.

Seeds should be changed every year with some curious person at a considerable distance ; by which means you will have much better flowers and plants, than if you continue to sow them in your own garden.

Stones, pieces of tiles, or oyster-shells, should be put over the holes in the bottoms of pots, to let off the water, and prevent the earth from stopping up the holes ; otherwise the water will be retained in the pots, to the great hurt of the plants.

Weeds should always be destroyed before they run to seed ; and be sure also to keep your heaps of dungs and manure, quite free from them.

Of the PARTS of a GARDEN.

AMPHITHEATRES, OR TEMPLES OF EVERGREENS.

In the making of them always remember to plant the shortest growing trees in front, and the tallest sorts behind.

BASONS. A circular one is the most common. The depth need not be more than two feet and half, unless they are designed for reservoirs to keep fish in ; then they may be made four or five feet deep. They are either made of clay, cement, or lead.

BASONS of clay. Allow four feet on each side of the diameter larger than the size of the intended basin, and dig them two feet deeper than you intend to have the water ; because it is afterwards to be laid over eighteen inches thick with clay, and six inches thick with gravel and paving. The clay should be well worked with the hands and water, and then be spread over the basin. Let it be well trod with the naked feet. The outward wall may be made of shards, flints, or rubble, with mortar made of the natural earth. This is called the ground wall. The inward wall should be made of good rubble stones, which will not scale off in the water ; and here and there should be laid stones the thickness of the wall, to render it the more substantial.

BASONS

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BASONS of cement. For these, one foot nine inches should be allowed on each end of the diameter, and the same at the bottom, beyond the size of the intended bason. Back, and raise up against the ground cut perpendicular, a wall a foot thick from the bottom with shard and rubble stones laid in mortar made of lime and sand; and work the bottom also over, a foot thick, with the same materials; after this the solid work or lining of cement is to be backed up against the wall, including the plastering and inward substance. This solid is to be made of small flints laid in beds of mortar made of lime and cement. When this solid is eight inches thick, it ought to be plastered over the whole surface of the bottom with well-sifted cement tempered with lime, and wrought over smooth with a trowel. Let there be two thirds of cement, or powdered tile, and one third part of lime. After this is done, for four or five days successively anoint the plaster over, either with oil, or bullock's blood, then let in the water as soon as possible.

BASONS of lead. These should be enlarged one foot at each end of the diameter, and be digged half a foot deeper than the bason is intended. Make the side wall a foot thick, and the lining at the bottom half a foot thick. This should be made of rubble stones laid in mortar all of plaister; for lime will eat the lead. Then lay the lead on the walls and bottom, and seam them well with solder. The waste pipes should not be made too small; and when the water is to be lost in sinks, it may be carried away in drains, or earthen pipes; but if it is to play fountains in the ground below it, then it must pass through leaden pipes.

BORDERS may either be made in straight lines, circular, or in cants; and may be turned into scrolls, volutes, and other compartments. There are four sorts. The first, which is the common sort, is continued about parterres. The second sort is cut into compartments. Both these should be laid in a ridge

in the middle, and may be made from four feet to six feet wide. These are generally adorned with shrubs and flowers. The third sort is made even and flat, without flowers, having only a verge of grass in the middle, edged with two small paths, raked smooth and sanded. These may be garnished with vases and flower-pots, placed regularly along the verge of grass. The fourth sort is made quite plain, and is only sanded, as in the parterres of an orangery, and is filled up with cases ranged in a regular manner along the borders, edged with box on the sides next the walks; and next the parterre with verges and grass-work. Sometimes a yew is planted between each case, to set off the borders in the winter. In borders made four feet wide, may be planted five rows of flowers. In the middle row place the tallest, and on each side of that plant a row of the middle sized flowers; and near each side of the border plant a row of the lowest growing tribe. One third part of the borders should be perennials; another third for bulbous rooted flowers; and the other third for annuals. Consider in what month each sort will blossom; and sort the whole in such a manner that they do not all blow together; but so contrive that always an agreeable mixture of flowers may be found in the garden, succeeding of each other, as long as the season permits.

BOSQUETS, or LITTLE GROVES, are small compartments composed of shrubs and tall trees, either formed in regular rows, or in a more wild and accidental manner; surrounded with evergreen hedges. The entrance should be of yews formed into regular porticoes. The walks may be formed either strait or winding, and be laid with turf kept mowed and rolled. Or they may be surrounded with hedges of lime, elm, horn-beam or beach. Intermix such trees as produce their leaves of different shapes, and are variously shaded with green; with such others as have hoary, or mealy leaves; but never mix evergreens with deciduous trees. Those quarters, where you would have evergreens, should be wholly planted there.

therewith, Some large growing flowers should be planted near the outside of the quarters.

CABINETS may either be made square, circular, or in cants: making a kind of a salon, to be set at the two ends, or in the middle of a long arbour.

COMPARTMENTS are composed of beds, plats, borders, and walks; laid out according to the form of the ground, and the fancy of the owner; with borders round, two feet or more wide, according to the size of the ground. They may be edged with box, or hardy thyme, &c. The alleys may be laid with a coat of sand, or gravel, three inches thick.

LAUNS should lie in the front of the house, open to the neighbouring countries. They should not be pent up with trees. They should be either placed at the east or the south of the principal rooms.

PARTERRES should face the best front of the house, and be open to the south, and be furnished with greens, flowers, &c. There are several sorts, as bowling green, or plain, or embroidered. Some are cut into shell or scroll-work, with sand alleys between them. An oblong is the most proper figure, and it should be at least twice as long as broad. Twice and a half is a good proportion. The breadth should be according to the front of the house, and there should be a terras-walk made on each side of it.

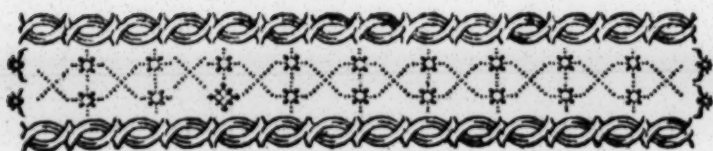
WALKS, gravel. When you make them, fill up the bottom with some lime rubbish, coarse gravel, flint, or other rocky substance, eight or ten inches thick; over which lay a coat of gravel six or eight inches thick. Never screen the gravel too fine, but cast it up in a round heap, and only rake out the great stones. When the gravel is laid, rake them over even, and roll it well both long and cross-way. The man who rolls it should wear flat-heeled shoes. Afterwards give them three or four water-rollings; that is, they must be rolled when it rains so fast that the walks are full of water. Gravel, that is sharp and over sandy, if it be mixed with loam and laid up in heaps for some time, and then laid down, will bind like a

rock. The best gravel is fetched from *Blackheath*, which should be mixed up with a due quantity of loam. Some recommend a sort of ironmould gravel, with a little binding lime mixed among it; but this never looks handsome. An old walk which wants coating over may have fresh gravel laid over it two or three inches thick. Never lay the walks too rounding; an inch in the crown of a walk five feet wide is enough; two inches for ten feet, three inches for fifteen feet, and four inches for those of twenty feet wide; and so on in proportion. *March* is the best time for making gravel walks. Keep them constantly rolled, but especially after frost or rain; and if that will not destroy the moss and weeds, turn them in *April*, and lay them down again immediately. Or instead thereof, you may run them over with a *Dutch* hoe in the spring, after frosty weather. A little after, rake them over, and roll them. To destroy the worms in them; water them now and then with water made very bitter by the infusion of walnut-leaves; this will cause the worms to come out of their holes, by which means they may be easily picked up.

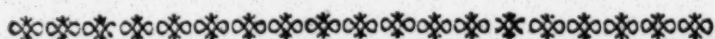
WALKS, grafs. They should in wet ground be cast a little rounding, but not so much as to be perceived. In dry ground they should be made as level as possible, with water-tables on each side, which should be new cut once or twice a year by a strait line as exact as possible. The oftener the walks are mowed and rolled in the summer, the better and thicker their bottoms will grow. In autumn the grafs should be kept very short, and the walks kept well rolled. The worm-casts should be beat to pieces with a long ash pole. The oftener this is done the better. Walks and paths are made by laying them over with fine turf from a common; the ground being first well dug and levelled, and then either well trod or beat even. Then nicely rake it over, and lay down the turfs close to each other, and roll them with a wooden roller for five or six mornings successively, 'till they have taken root. They may also be made by being sown

sown with seed taken from such pastures where the
grafs is fine and clear ; first break up the ground and
well dig it, press and lay it even, then finely rake it
over, and take away all stones and clods, and after it
is well dressed and laid even, then cover it an inch
thick with good mould ; then sow the seeds pretty
thick at the end of *August*, in a mild day when likely
to rain ; and then rake it over again. After the grafs
comes up, often roll and mow it. If it be neglected
it will soon run to quick grafs and weeds ; and then
it must be either sown again, or be laid over with turf.
The sowing should be repeated every two years. In
autumn you may sow fresh seed over any part that is
well filled, or where the grafs is dead.

WALKS, sand ; are generally small walks in the
private parts of a garden. They should be made of
sand which is somewhat binding, and of a middling
nature ; and when they appear mossy or weedy, they
should be shaved over with a *Dutch* hoe in dry wea-
ther, and then raked over. These may also be made
of sea-shells well powdered, which should be now
and then rolled ; or they may be made of sea-coal
ashes, &c.



T H E PRACTICAL GARDENER.



P A R T I.

Of the KITCHEN GARDEN.

The INTRODUCTION.

A KITCHEN GARDEN should be placed out of sight from the house, near the stables, and an exact square is preferable to any other figure. Let the soil be neither too wet or over dry, nor too strong and stubborn. Never make choice of a low, moist spot of ground ; but let it be fully exposed to the sun, and not shaded by trees or buildings, but yet defended, by distant plantations, from the north and the strong south-west winds. One acre will be sufficient for a small, and three or four acres for a large family. Wall the same round, twelve feet high ; and it will be the better, if you have the conveniency of planting both sides of the wall with fruit. If the soil be very strong, dig or plough it three or four times before you plant any thing, and throw it up in ridges to receive the frost in winter. Endeavour to have reservoirs or basons of water. Let the borders be ten feet wide from the wall ; and, on the banks to the south, you may sow some early crops, and, on the north, you may have some late ones ; but never plant any deep-rooting, large plants, bulbous-rooted flowers, or rosemary

mary, near fruit-trees; nor should the borders be much crowded with beans, pease, &c. but rather rise early crops of these under reed-hedges, in some of the warmest quarters. Make the walks according to the size of the ground; six feet wide in a small garden, and ten feet wide in a large one, is sufficient; and make the borders three or four feet wide from the espaliers to the walks, to sow small fallads, &c. in. Only level the surface of the walks, and strew some sand or lime-rubbish over them. When any part of the ground is unoccupied, trench it in ridges, and keep it clear from weeds. Never plant any ground for two years together with the same kinds, without greatly altering the soil. In one of these quarters nearest the stables, and best defended from cold winds, should be the place to raise your early melons and cucumbers in, and should be surrounded with a reed-hedge; the size according to the number of beds intended, and large enough to contain beds for two years; or else have two of these places, and change them every year.

The most important points of general culture consist in well digging, keeping clean, and manuring the soil: of which you may be informed in the premises; and in giving proper distance to the trees and plants, according to their different growths; as you will find directed under every article in this book. And, to render this more practicable, great care must be taken to keep the dunghills always clean from weeds, otherwise their seed, being brought in with the dung, will destroy your crop or plants. The like care is to be had in removing every nuisance, such as cabbage-leaves, bean-stalks, pease-haulm, &c. for if suffered to rot upon the ground, they will sour the soil, and become very disagreeable to the smell. However, if you will be at the pains to burn the bean-stalks, they will yield good ashes and salts to enrich the land.



The PRODUCE of a KITCHEN GARDEN.

THE PRODUCE of a KITCHEN GARDEN consists of *pot-herbs, sallad-herbs, esculent or eatable roots, pease, beans, kidney or French beans, asparagus, artichokes, cauliflowers, broccoli, cabbages, cucumbers, gourds, and melons.*

Under the name of POT-HERBS we rank,

Balm,	Fennel,	Mint,	Savory,
Basil,	Smallage,	Parsley,	Thyme,
Clary,	Spinage,	Sage,	Tansey.

SALLAD-HERBS.

Burnet,	Alexanders,	Radish,
Celery,	Cucumbers,	Rape,
Chardon,	Cresses,	Sorrel,
Chervil,	Endive,	Water-Cresses,
Corn Sallad,	Finochia,	Tarragon,
Mustard,	Lettuce,	Celery.
Purslane,		

ESCULENT or EATABLE ROOTS, &c.

The Jerusalem	Leeks,	Rampion,
Artichoke.	Onion,	Rocombole,
Beet,	Broccoli,	Scorfonera,
Carrot,	Cabbage,	Skirret,
Chives,	Savoy,	Turnip,
Eschalots,	Parfnip,	Artichoke,
Garlick,	Potatoes,	Cauliflower,
Salsify,	Radishes,	Brown-Cole.
Horse-Radish,		

BEANS.

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The PRODUCE of a KITCHEN GARDEN. 39

B E A N S.

Lisbon (small),
Spanish,
Windfor,
Sandwich,
Mazagan and Tokay,

French or Kidney,
—— Common white,
—— Dutch,
—— Battersea.

P E A S E.

Dwarf,
Hotspur,
Master's Hotspur is the
best,
Rouncival,

Spanish Moratto,
Rose or Crown Pea,
Marrowfat,
Sugar.



The



The STOCK of a KITCHEN GARDEN,

In the MONTH of JANUARY,

Alphabetically digested.

IN *January* our gardens may be brought by *art* and *industry* to yield the following *pot-herbs*, *sallad-herbs*, *roots*, &c.

Artichokes,	Endive,	Sage,
Asparagus,	Horse-Radish,	Scorsonera,
Beans,	Lettuce,	Sallading,
Beet, (red and white)	— Small,	(small),
Burnet,	— Cabbage,	Savoys,
Cauliflowers,	Leeks,	Skirrets,
Cabbage,	Melons,	Sorrel,
— Red,	Mint,	Spinage,
— Russia,	Marjoram, (win- ter)	Sprouts,
Cale, (Boor)	Mushrooms,	— Dutch and Battersea cab- bage,
Carrots,	Mustard (white)	Succory,
Celery,	Onions, (young)	Tansey,
Chervil,	Parsley,	Tarragon,
Clary,	Pease,	Thyme,
Cresses,	Rampion,	Turnips.
Cucumbers,	Radishes,	

The WORK and LABOUR in a KITCHEN GARDEN, in JANUARY.

If the ground be hard with frost, bring in all necessary manures for enriching the soil: if the weather be open. trench the ground where it is not occupied, and lay it in ridges to be sweetened by the frost when it comes.

Make *hot-beds* according to the directions given in page 19, for *cucumbers*, *melons*, small *sallading*, &c.
And

And if you desire to have early *asparagus*, you must now, and continue every three weeks, till the natural sort can be produced in *March*, make a particular sort of *hot-bed* for *asparagus* in this manner:

Take a sufficient quantity of stable horse-dung, that has lain six or seven weeks, with some sea-coal ashes; and fermented, after it has been well turned up and mixed for ten or twelve days. Lay this fermenting dung in the trench, dug the size you propose to have it, working it very regularly, and beating it down very tight with a fork, laying it at least three feet in thickness.—Then put on the earth about six inches thick, breaking the clods and laying it level, upon which the roots are to be laid in this form:—Begin at one end, and lay the roots against a little ridge of earth, raised about four inches high; and place them as close together as possible in rows, with their buds standing upright; and between every row lay a small quantity of fine mould, observing to keep the crown of the roots exactly level. The roots being thus laid, lay some stiff earth up to the roots, on the outside of the bed, which are bare, to keep them from drying; and thrust a sharp-pointed stick here and there, about two feet long, down between the roots, in the middle of the bed, at proper distances: and by feeling the lower part of each stick when drawn up, you will be able to form a judgment of the temper of the heat in that bed. If it does not heat in six or seven days, cover it all over with straw or litter, which will help it. But should it prove too hot for the roots, thrust a large stick into the dung, in two or three places on each side of the bed, which in a short time, by letting out the steam through those holes, will reduce the bed to the heat required. This bed having been made a fortnight, cover the crowns of the roots with fine earth, about two inches thick: and when the buds appear above that fresh earth, you must then lay on about three inches

*A hot-bed
for Aspa-
ragus.*

inches more earth; so that in the whole, it may be five inches above the crowns of the roots.

Then fasten a band of straw or litter, about four inches thick round the sides of the bed with straight sticks, about two feet long, sharp-pointed, so as to run into the beds, and in such a manner, that the upper part may be level with the surface of the ground. Upon this band set the frames, and put glasses thereon.

Should it happen that the heat has declined at the end of three weeks, lay a good lining of fresh hot dung round the sides of the bed, and that will give it fresh heat.

In fine sun-shine days, let the glasses be exposed to the sun; its reflection through the lights will give a good colour to the *asparagus*: but keep the glasses well covered with mats and straw in bad weather and every night. See the article *asparagus* in the month of *March*.

Clear the dung from the last year's melon beds; which will, when laid on different parts thereof, much improve the kitchen garden mould.

Then, having prepared a load of fresh horse-dung, well mixed and thrown about with a fork, and laid together eight or ten days, make a bed for raising early *cucumbers* and *melons*, the size of a one-light glass and frame. This load of dung, when well worked up, but not trod down, will rise about three feet high; and when done, put on the frame and glass, and keep it on till the heat has risen to the top of the bed; which must be left off by raising the glass at one end. When it is found that there is a proper heat in the bed, cover it all over with two inches and half deep of dry mould, and fill six small pots charged with rich dry earth, and keep them in the frame close till the earth in the pots is warm: they then will be fit for use.

Lettuce. Pick off all dead leaves from *lettuce* and *cauliflower* plants; and keep them perfectly clear from weeds.

Hang

Hang up a string of feathers across the places sown with seed, to keep off the birds, and cover the ground fresh stocked with cuttings of thorns or briars. And cover the early appearing plants with straw, to preserve them from frost.

Attend *cauliflower* plants. Stir the surface of the ground, after they have been well cleaned from dead leaves and weeds. And in regard to covering, air, and weather, treat their frames and glasses, under which they grow, as directed for *asparagus*. Draw a little earth round the stem of the plants; and bell-glasses may be taken off for three or four hours every mild day. *Cauliflowers and Asparagus.*

Prepare ground for *cabbage* plants thus: Dig a trench one spade deep, and bury some rotten dung at the bottom thereof. Make good the plants in the former plantations, which have been destroyed by the frost, rain or vermin. *Cabbage.*

In the beginning of this month transplant *cabbage* for seed, if it has not been already done.

Earth up *celery* in such a manner, that the plants may not be crushed down, nor the heart of the plant buried: yet the earth must be raised to very near the top of the plants, to preserve them from severe frosts. And cover some rows with dry long litter, to prevent the ground and top of the plants from being frozen. *Celery.*

Sow melon seed, cucumber seed, lettuce seed, radish seed, carrots, spinage, small fallading, and parsley. *Seeds to be sown.*

Plant *strawberries* upon moderate hot-beds, for early fruit. Dress *sage*, *thyme*, and other sweet herbs, with fresh earth; and plant *mint* upon hot-beds for fallading. *Strawberries, &c.*

Remove the straw that has been laid to preserve the *musbrooms* from the frost, and replace it with fresh straw, once in three days, if the weather proves wet. *Musbrooms* are produced from seed, *Musbrooms.*

seed, sown in *August* or *September*, and taken from the mushrooms growing in rich pastures, thus: Open the ground about the roots of mushrooms, and there you will find a parcel of small white knobs, which are the off-sets or young mushrooms: Take them up very carefully, with the earth about them. Sometimes they are found in old dunghills, and old hot-beds, and known by the long strings, that shoot out from those knobs. Or this may be procured by mixing some long dung from the stable, which has not been thrown up in a heap to ferment. See the month of *September*.

Endive. Plant *endive* after this manner: Dig a border in a dry place, blending a little sand well with the mould; and having laid it so rounding, as to throw off the water, plant the endive roots at the distance of fifteen inches from each other: and care must be taken to bring them from the seed-beds with as good a bulk of earth as can be kept. Let the mould be gathered up about each plant, in a kind of a hill: and let the beds have a little water between them. After this no more will be required, but now and then to water the plants in a dry season, and have the ground kept clean from weeds.

Some of the endive planted out last *September* or *October*, will now be fit for blanching: for which purpose, take up some of the soundest and largest plants; and having drained all the wet from them, by hanging them up in a dry place for a day or two, lay them in this manner: Prepare a ridge in a light, dry ground, by marking out a trench, sideways to the meridian, about thirty inches wide; dig the trench a spade deep, throwing the mould up to make a high ridge on the north side, and making the sunny side next the trench as upright as possible, to throw off the water of heavy rains: then having gathered the leaves of each plant regularly and close in the hand, make an opening on the sunny side of the ridge, and lay the plants, pretty close, sideways into the earth, almost to the tops of their leaves. Or, in fine weather,

weather, you may blanch *endive*, by throwing the face of the plant flat upon a bed of straw, and covering it well with horse litter, that is not wet; and the plants will be blanched in a week or ten days.

Of MELONS and CUCUMBERS.

Our gardens are now brought to such perfection as to raise six sorts of *melons*, viz. The *common musk*, the *Portugal* or *Pocket*, the *netted* or *wrought*, the *great musk with a green skin*, the *white Spanish*, the *green fleshed*, and the *Italian* or *Cantalupe*.

The seeds of three or four years old are accounted the best: but if obliged to sow new seeds, keep them in the breeches pocket, or some place equally as dry, for two months before laid in the ground: and, if possible, change your seed yearly.

The early crop is most properly sown about the middle of *January*, or the beginning of *February*. Make hot-beds as for early cucumbers, and cover them with fine, light earth, three inches thick; two days after sow the seeds, two or three in a hole, half an inch deep. If the beds are too hot, raise the glasses half an inch: if too cold, lay some litter round the bed, and cover the glasses with mats or straw every night and in bad weather.

When the plants appear, give them air with great discretion. Every day in fair weather turn the glasses, and in bad weather turn and wipe them with a flannel cloth.

As soon as the plants are thus come up, lay a fresh heap of dung, to remain for six or eight days, and therewith make a new hot-bed; and having covered this new bed with frames and glasses, and brought it to a proper temper, prick the plants out upon it, three inches square; and when the sun shines warm, shade them till rooted, giving them air according to the season and heat of the bed. As they advance put in some fresh earth between the plants;

plants; and let the coverings in the night be proportioned to the heat of the bed.

Against they shew their third or rough leaf, be provided with a heap of fresh dung, as before, the quantity of a load for each hole or light. Then dig a trench, and make a fresh bed, and lay a coat of fresh earth three inches deep and very even upon the hot dung, and broken very fine. Then lay on the frames; and in the middle of each light put a good basket of fresh earth, and make in the form of a hillock. Cover all with the glasses for two or three days; and when the bed throws out a convenient heat, level the top of those hillocks, and make it concave or a hollow, in form of a shallow basin: in each of which let there be put two strong plants; and if the earth be dry, give each plant a little water, and shade them till rooted: then give them a due quantity of air, and constantly turn the glasses to dry.

The fourth leaf being put forth, pinch off the extreme part of the shoot, that will force out lateral branches; which, when six inches long, must be regularly trained, so as to remain in such a position, that they don't cross nor entangle each other. They must not be stopped, but often gently watered.

Being shot so as to grow off the hills, gently water all over their leaves, about seven in the morning, or according to the season: and in a hot sun rise the glasses; but in very hot weather shade them in the middle of the day.

When the fruit begins to appear, water the plants often gently, and continue the same during their growth: but stop your hand when the fruit is grown large, give no more water, or give it very sparingly.

As the fruit ripens, turn it every day; by this means the whole will be equally exposed to, and partake of the sun, and the fruit become more grateful to the palate.

They, who would be still more early in this cultivation, may plant melons in baskets or pots, as directed in the cultivation of cucumbers. And when their

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their flowers begin to appear, ridge them out, and manage them as before directed.

Or,

Sow some seeds early in *October* upon hot-beds, made four feet square, and two feet thick; and, after they shoot forth, cover them with glass caps or shades, leaving a little room for air. Afterwards transplant them four inches square, on the same bed. In the day let them have as much air as possible; but cover the glasses very close at nights; and when they are found in the second joint, plant them in small baskets or pots five or six inches, and treat them as above-mentioned.

If you would sow for a general crop, you will be time enough in the beginning of *March*. Then you sow the seed, * that has been steeped twenty-four hours in milk, or otherwise on a hot-bed, covered with hand or bell glasses on frames of oiled paper.

In a week the plants will be fit to prick out, at four inches asunder, on another hot-bed, covered with hand or bell glasses, and there remain till the first leaf be as big as a crown piece. Earth up the stem as the plants grow; and having prepared as much horse-dung as required to make your holes, in the proportion of one load to five holes, dig a trench two feet and a half wide; make the holes for the plants rather more than three feet distant: lay a basket of light earth, marked with a stick two feet long, on every hole. Cover over the bed, with earth from the trench, three inches thick or more, and very even: put on the glasses close down over each stick for two days; then take out the sticks, and make

* The seed ought to be taken from the firmest fruit, and those which have the highest flavour. And if these be taken out with the pulp entire, without displacing the seeds, and suffered to remain in the pulp two or three days before it is washed out, the better; and then preserve only the heavy seeds, which sink in the water. MILLER'S Dictionary.

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the tops of the hillocks as directed before; and put two strong plants, which have their rough leaf, and no more, into each hole; which must be discretionaly watered and well shaded, till they have taken root. If the weather grows warmer, give air on the fourth side in the middle of the day: and if the weather be good, give the plants a little water twice a week.

In *May* these plants will be luxuriant, and shoot out water-branches, which are distinguished from the bearing branches, by their flatness and extraordinary breadth, and are best to be pruned off in that month. And when the runners crush against the glasses, raise the glasses by three bricks placed underneath their edges, at right angles, and lead the runners out gently; always remembering, that, if the nights be cold, they must be covered with mats. When the runners reach to the side of the trench, dig up the ground on each side, and bury therein some rotten horse-dung, and make it even to the trench. From which time the water must be given over the glasses: the best is pond-water, warmed in the sun. But the best method of watering melons, when they come to this growth, is to float the alleys between the beds. When their fruit shews the size of one's thumb, water all over their leaves gently two or three times a week in the evening. Being grown as big as a tennis-ball, place a thin piece of tile under each: and when full-grown forbear watering; but cover them constantly with glasses when the weather proves cold. Let the fruit be well guarded with leaves, whilst growing, and when full-grown, expose it to the sun as much as possible.

The *Cantalupe* melon, which is in the greatest vogue, is cultivated in a different manner. Never attempt to have any fruit ripe earlier than the middle of *June*. In a favourable season the *Cantalupe* will continue very good till the latter end of *October*, provided the plants be properly managed, and the seeds sown at two or three different times.

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The first season for sowing the *Cantalupe* seed is the second week in *March*, on the upper side of a cucumber-bed, or on a hot-bed made in the form of a hot-bed for raising cucumbers.

The second season is the last week in *March*, or the first week in *April*. The seeds to be sown in the same manner; and at both seasons to be raised under frames: for those raised under oil-papers are not sown till about the 18th of *April*; or you may defer this sowing to the first of *May*.

The beds, or ridges, on which the *Cantalupe* plants are to be put to remain for a crop, must be placed in a warm situation, well defended from the east and north winds. Let them be open to the south, inclining a little to the east, sheltered at a distance by trees from the other points of the compass; and enclosed with a good reed-fence, so contrived as not to rob the plants of the sun-beams during any part of the day.

The best compost or mixture of earth for this seminary is, of hazel-loam one third part; of the scouring of ditches or ponds, another third part; and a third part of very rotten dung; and mixed at least two years before used, and often turned over, to incorporate the parts and to sweeten it; according to the *Dutch* and *German* method of cultivation. But the *English* find that their plants succeed best in a compost made of one third part of fresh, gentle loam, and one third of rotten neats dung, mixed one year before used; kept well weeded and sweetened by turning it over frequently.

When the plants appear, remove them, as directed above, into another bed. But let this work, if possible, be done in the evening, and when there is little wind. Raise the root with a hollow trowel, so as to injure none of the fibres. And this transplanting is best performed soon after the third leaf is put out. Or, it is found a good method, to plant each plant into a small pot while they are young, and these may

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be plunged into the hot-bed where they were raised, or in a cucumber-bed, where there is room, so that they may be brought forward, till the bed be ready; and then they may be turned out of the pots, with the whole ball of earth to their roots. Always observing, never to leave more than one plant of the *Cantalupe* in each light. When the plants of this melon are planted out for growth, water them gently; and repeat this once or twice till the plants have taken root. After which they seldom require more. For much water is apt to bring the canker; which infallibly damages the fruit.

In this situation manage the plants as directed above, after they have shot four leaves; observing when you take off their tops, that it be done with a knife, not with the finger and thumb, nor in any manner to bruise the plant, in order to increase the lateral shoots.

If the plants succeed, they in six weeks will reach to the frames: then, if more beds than one, dig out the alleys; but where there is only one bed, make a trench on each side thereof, about four feet wide, and as deep as the bottom of the bed; to be filled up with hot dung, to raise a lining to the same height as the dung of the bed: which must be trodden down close, and then covered, a foot and a half thick, with the same earth as in the bed; which also must be trodden down as close as possible; because the roots will extend themselves quite through it: and this lining will preserve them from both the sun and the air, which otherwise would destroy the extremities, and thereby spoil the fruit. At the same time, when the vines extend so far as to fill the frames, the frames must be raised about three inches high upon bricks, to permit the vines or runners to pass under them.

Directions for pruning these plants. To be sure, it is a good practice to nip off the ends of the plants as soon as they have a joint, in order to get lateral shoots;

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shoots; and to do the like when those shoots have got two or three joints, to force out more runners, because it is from those the fruit is to be produced: but after a sufficient number of runners or shoots have been obtained, prune no more, and wait for the appearance of the fruit. When the fruit shews itself, carefully look over the vines thrice a week, to observe the fruit; and having made choice of one upon each runner, which is situated nearest the stem, having the largest stalk, and that appears to be the strongest fruit, pinch off all the other fruit upon the same runner, and pinch off the top or end of that runner at the third joint above the fruit, and that will stop the sap and set the fruit. If more fruit be left on a plant, than there is nourishment for, the fruit will be small, and the flesh remarkably thin.

If the *melons* are to be raised under bell or hand-glasses, allow eight or nine wheel-barrows of good dung to each glass. Where there is but one bed, extended in length, dig the trench four feet wide; and place the glasses four feet from each other. The trench must be also contrived so as to allow for the widening of the bed three or four feet on each side: and if the soil be dry, the deeper the trench is made the better. In making of the beds, mix and lay the dung as directed for the frames. After the dung is laid, raise a hill of earth for the plant to stand a foot and a half high. The other part of the bed need not as yet be covered more than four inches thick, to keep in the heat of the dung. Place the glasses over the hills or risings, and set them down very close to the earth, in order to warm the earth of those hills, and make them fit to receive the plants, which will be in two or three days, if the beds work kindly. Then the plants must be removed, and ordered both as to planting, pruning, watering, and air, as directed for those raised in frames.

As the vines of the *Cantalupe* abhor wet weather, it is recommended to arch these beds over with hoops,

to support mats, ready to cover the premises at all times, when rain comes; which frequently destroys melons of all sorts under glasses: and to guard against accidents in cold weather, there ought to be trenches dug on each side of the bed, and a lining made of the same thickness with the bed, as directed for the frames.

It is a good method, in general, to obtain good and large fruit, to cut off all weak runners; to turn the fruit twice a week; and to float the alleys with water once in a week or ten days, if the weather happens to be very dry; and to give as much free air as possible at all times, when the weather will permit; always taking special care to cut full-grown fruit at a proper time: for this reason, look over the vines twice a day, when ripe fruit is expected. If the fruit be left a few hours too long upon the vines, they will lose much of their delicacy. Those that are cut in a morning, before the sun has had power over them, will be found the best flavoured: and those that are cut afterwards, should be put into cold spring water, before served up to table.

The sign of this fruit's maturity, is its cracking near the foot-stalk, and its beginning to smell. And the directions given for the cultivation of the *Cantalupe*, will be found equally good for all the other sorts, as has been found by experience.

Of CUCUMBERS.

As the most early *cucumbers* are cultivated in this month by our gardeners, I shall give you the manner of their cultivation in other seasons, as well as in this: by which you will form a better judgment how to be always supplied with this fruit.

The *cucumber* is an oblong, fleshy fruit, with three cells, including many oval, flat-pointed seeds: of which there are three sorts chiefly known to us, *viz.* The *common*, the *white*, and the long *Turkey* cucumber.

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The first sort has the general run of our kitchen gardens; but the *white* is accounted the best sort, because it is less watery. The *Turkey* differs very little from either of them in quality. It yields both *white* and *green* fruit: but it is generally twice the length, and hath a smooth rind.

To have the *common* sort early; about the end of *January*, throw into a heap a quantity of new horse-dung and litter mixed together, with a little sea-coal ashes; in four or five days draw a little part of the heap flat, and cover it with sifted earth two inches thick; and put on bell-glasses, and lay a little dry litter on them: when you find the earth warm, put in the seeds, and cover them a quarter of an inch thick; then set on the glasses, and cover them in the nights and in bad weather. As soon as the plants appear, with the rest of the dung make a bed for a single light, and cover it with fine earth three inches thick; then put on the frame, and cover it: when this bed is of a proper temper, prick into it the young plants, almost to their seed-leaves in the earth, two inches square; in twenty-four hours they will be rooted; then give air as the weather will permit, and also turn the glasses upside down every day. When the weather will not suffer the glasses to be long off, turn them once or twice a day, and wipe them with a woollen cloth, but let not in too much cold air. Fasten round the upper side of the frame a piece of coarse cloth or mat, to prevent the air striking too suddenly. Whilst young, water them very sparingly; and the water should be placed in a heap of dung some time before used. As they advance in height, lay a little dry, sifted earth round their stalks. If the heat declines, lay a little fresh litter round the sides, and keep the glasses covered: if it is too hot, make holes, by thrusting in a large stake into the side, in two or three places, almost to the middle of the bed: when you have brought it to a proper temper, stop the holes up with dung. When

the third or rough leaf appears, prepare another heap of fresh dung as before; one load for each light or hole; and make this bed three feet thick of dung. Such plants as are not ridged out till *March*, need have but two loads for three lights. In the middle of each light make a hole, one foot deep, and nine inches over, and fill them with light, rich, sifted earth, making it in a little hill; in the middle of each put a stick, eighteen inches long; then earth the bed all over, three inches deep; level it smooth, and set on the glasses. When the bed is of a proper temper, make the earth hollow, like a basin, in the middle of each hole, breaking the earth with your hand; then in each hole place four plants, a little slanting towards the centre; and, if the earth be dry, give a little water, and shade them till rooted; then let them have as much sun as possible: turn the lights, and give a little air when the weather permits: every night, and in bad weather, cover the glasses, but not too close whilst the bed has a great steam in it: when they are four or five inches high, with some slender, forked sticks, incline them towards the earth different ways; and, as runners are produced, peg them down in exact order, so as not to cross each other; and never after remove them. When you weed the bed, carefully hold the leaves aside with one hand; either prune the vines, or pull off what are called male blossoms. If they are very luxuriant, pull up one of the plants before it is entangled with the others. When the fruit begins to appear, lay a little fresh litter, or mowing of grass, round the sides of the bed. Shade them in the middle of the day when the sun shines very hot. When you water, sprinkle all over the vines; but this should not be done whilst the sun shines hot.

If required very early; sow at the beginning of *January*, as before; and against they have their rough leaf, have ready many small, loose-wrought baskets, five inches deep, and eight inches over; fill them

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them near the top with good, light earth, and place them close together on a good hot-bed, and fill up the spaces between with common earth; then put on the frames and glasses, till the bed is of a proper heat; put five plants in each basket, and water and shade them till rooted; then treat them as mentioned above. Keep up the heat of the bed. When the plants run to the edge of the basket, prepare a ridge of good substance in dung; and, in two or three days, place a basket in each light; and, if the bed is too hot, raise the basket a little; and, as the heat abates, place them down again. Or you may sow them on natural soil in *September*, to be afterwards planted in pots, to be sheltered from cold nights, till a hot-bed is prepared for them; and they may have air sometimes in *October*, but in the nights cover them up close with the glasses and mats. With due care these may be made almost as hardy as you please.

To raise under hand or bell-glasses, for a general crop. The beginning of *March*, or a little later, put in the seeds, on the upper side of the early hot-bed; and, after they are come up, prick them on another moderate hot-bed, and cover them with glasses placed as close as possible to each other; water and shade them till rooted: every night, and in bad weather, cover the glasses; in hot weather, give air on the opposite side from the wind; and, whilst the plants are young, water them but sparingly. The beginning of *April*, ridge them out; having ready a heap of new dung, one load to six holes; dig a trench two feet four inches wide; and, in a dry soil, sink it ten inches deep, otherwise very shallow; level the bottom, and put in the dung; make holes, eight inches deep, and six inches over, in the middle of the ridge, and three feet and a half asunder; fill them with good, light earth, and place a stick in each hole; cover with earth four inches thick, and set the glasses close down on the holes for twenty-four hours; then plant and manage them as before-mentioned. When the plants begin to fill the glasses, raise up the south side

with a stick; but do not expose them too soon to the open air. Keep them under the glasses as long as can well be; then raise the glasses, with two bricks on the back side, and a forked stick on the south side. The end of *May*, in settled weather, raise the glasses three inches from the ground, and gently turn the plants out, when the sky is cloudy and inclinable to rain. Take not the glasses away till the end of *June*, or beginning of *July*. Three weeks after the plants are turned out, dig up the spaces between the ridges, and, after they are made even, lay out the runners in order. Water as often as necessary, which may be known by the hanging of their leaves.

To raise picklers, sow the end of *May*, in settled weather, in square holes, at three feet and a half distant; break the earth well, and smooth and hollow them like basons: put eight or nine seeds in the middle of each hole: if very dry weather, water them gently a day or two after sown: when they appear, guard them from sparrows, and water them as the season requires: when the rough leaf begins to appear, leave only five of the most promising in each hole; stirring the earth about them, and raising it up their shanks; and, with your hand, press down a little earth between them, giving them a little water; and repeat the same as the season requires. Seeds may be also sown, on a bed made with dry horse-litter, in *July*, covered with earth ten inches thick; and, in *September*, cover them with a common frame and glasses; and, with due care, you may have fruit till *Christmas*.

For good seeds, choose, in the ridges under hand or bell-glasses, one or two of the fairest fruit from each hole, leaving but one on a plant, and that near the root; and let them remain on the vines till *August*; then gather and set them upright in a row, under a hedge, till the cover begins to decay; then scrape out the seeds, with the pulp, into a tub, and cover it for eight or ten days; stir it up well, with a stick, to the
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bottom every day; then pour in water, and stir it well, which will raise the scum to the top; give two or three washes in this manner, and then strain the water from the seeds, and spread them on a mat for three or four days in the air, till perfectly dry; then put them in bags. Seeds three or four years old are best.

Of LETTUCES.

The sorts cultivated in *England* are known by these names, viz. The *common*, or *garden* lettuce; the *cabbage* lettuce; the *Silesia* lettuce; the *brown Dutch*; the *Imperial*; the *green Capuchin*; the *Aleppo*; the *upright white cos*; by some called the *Verfailles* lettuce; the *black cos*; the *red cos*; the *Egyptian cos*; the *Roman* lettuce; the *prince*, and the *royal* lettuce.

Of which the *Egyptian green cos*s, the *white cos*s, the *Silesia cos*s, and the *red cos*s, are most esteemed in the *London* markets: but it will be too early now to sow their seed for any other purpose than immediate use to mix with small sallading: for which purpose, it will be proper to sow some *cos*s, cabbage, or *brown Dutch* lettuce, on a warm border, under a wall, on a frame, about the first or second week in this month; and repeat the sowing towards the end of the month, lest those sown before should be cut off: and some of the strongest of these plants, perhaps, may be pricked out in the next month for an early crop, transplanted into a rich soil, and planted at the distance of fourteen or sixteen inches from each other.

Sow the *Silesia*, *imperial*, *royal*, *black*, *white*, and *upright cos*s, the end of *February* or beginning of *March*, on a warm, light soil, and open situation; after they are come up, thin them to fifteen inches square, and transplant those taken up on another bed. The *black* and *white*, when full grown, should be tied up as endive. Sow also in *April*, *May*, and

June, and a late crop the end of *August*; this last sowing should be in a moist, shady situation, and transplanted either under glasses or in beds arched over with hoops, and covered with mats in hard rains and frosty weather. In spring plant them out in a rich, light soil, eighteen inches distant. The other sorts may be sown in *February*, on an open, warm spot; and, after come up, thin them ten inches square. Seeds may be sown at any time of the year; in hot weather on shady borders, but not under trees; in spring and autumn in warm borders; and in winter under glasses. The beginning of *August* sow for the last crop, and, after they are come up, hoe them to stand single; the beginning of *October* transplant them on warm borders, and plant a few in a bed to be arched over with hoops, to be covered in frosty weather; plant these pretty close, and in spring transplant them in a warm, rich soil, ten inches a-part, and not too close to the wall. Seeds are best from those that have stood the winter, or those sown early in the spring; for this purpose choose, when they are in perfection, such as are very hard and grow low; mark those with sticks, and, as soon as the others begin to run up, pull them all up, and tie up the stems of those you marked; cut such branches as ripen first, and dry them on a cloth in the sun. Seeds will grow at two years old, and, if well saved, at three.

Of RADISHES.

Though there are enumerated various sorts of radishes in books of gardening, I do not find that our kitchen gardeners bring any others, but those with an oblong root: of which there are two species; one whose skin inclines to a purple, the other to a scarlet colour.

These are properly sown about the middle of *January*, in a border well exposed to the sun, (this is much better than in a hot-bed;) and from that time
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continued, for a succession, once a fortnight, to the middle of *April*.

Sow the seed pretty thick, and rake them even and lightly into the ground: and it is a good practice to sow carrots, or rather spinage, amongst them. But care must be taken to preserve the seeds from birds and frost: for which purpose cover your beds with mats, or use such means as, in common, fright birds away; and, in frosty weather, if the plants appear above ground, lay some straw, &c. lightly over them.

Sow the latter crops on a moist soil, and an open situation. When they have five leaves, (if they are to be drawn up small) thin them to three inches square; and, if they are to continue till larger, thin them to six inches square. To save *seeds*, in the beginning of *May* prepare a spot of ground, well dug and levelled, and plant some of the straightest and best coloured, in rows three feet distant, and the plants two feet asunder; if dry weather, water them till rooted. When the seed is ripe, guard it from birds, and spread it in the sun to dry. The *large* and *small round-rooted* sorts, must be cultivated in the same manner, only must not be sown till the beginning of *March*, and must be allowed a greater distance. Seeds of these sorts are best had from abroad every year. The *black Spanish* may be sown in *May*, and afterwards hoe them out a foot asunder.

Of CARROTS.

There are a variety of carrots, but the gardeners about *London* prefer the *manured carrot*, with an *orange coloured* root, commonly called the *orange carrot*. There are also some varieties of this carrot; both in taste and in the colour of their roots; some being more musky in the taste, and of a paler colour: but there is no care taken to continue these variations, which might be done by keeping the different sorts separate, when set off for seed.

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There are *yellow*, *purple*, and *white* carrots; but they are seldom cultivated for the kitchen use.

To cultivate *carrots*, sow soon after *Christmas*, or about the middle of *January*, for the first crop, in open weather, and on warm borders, six inches from the wall, &c. Sow the second crop, in such another situation, in *February*. Sow from the beginning to the end of *March* in open, large quarters. In *July* sow for a crop to stand the winter; and when their leaves are decayed, about the beginning of *November*, dig them up and lay them in sand, in a dry place secured from frost. To have good seed, plant some of the straightest and largest roots, the middle of *February*, a foot square, in a light soil; when the seeds are ripe, about the middle of *August*, cut the stalks off, and place them in the sun and air, in a dry place, for several days; then beat it out, and keep it in bags in a dry place. New seeds are best, nor will they grow after two years old.

When you sow, choose a warm, light, sandy soil, dug deep, and dunged a year before used. Rub the seeds well between your hands, and sow in a calm day; tread the ground over pretty close, and then rake it even: after they come up, hoe them four inches square; and, three weeks after, hoe them to a greater distance; a month after, hoe them again to six inches square, if intended to draw whilst young, and to ten inches square, if designed to grow large.

Some authors have promoted a practice to bring forward carrots on a hot-bed: but I would advise nobody to follow it; for the carrots forced in that manner, will never do credit to them who are at the pains to cultivate them, either in colour or taste.

Of SPINAGE, or SPINACH.

There is a sort of *spinage* proper for winter use; another for spring and summer. The *winter spinage* has arrow-pointed leaves, and prickly seeds. The *spring* and *summer spinage* is distinguished by its oblong,

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long, oval leaves, and smooth seeds. And of this sort there are two or three varieties, which differ only in the size and thickness of their leaves; which in one are much rounder and thicker than the other.

The smooth seed is the best to sow at this season, and is thus cultivated. An open spot of ground being prepared for *radishes*, the *London* gardeners always mix *spinage* and *radishes* together, in order to have as many crops upon their land as possible. But where a gentleman has land enough, and would have *spinage* in perfection, let him sow its seed without mixing it with any other seed; because when the plants are come up, you will then be able to hoe the ground to destroy the weeds, and to cut out the plants about three inches asunder, that the remainder may have room to spread. And in gathering this herb, thin the plants again and again for the same reason; for, if the plants be left eight inches asunder, the plantain *spinage*, as we call the broad, thick leaves, will cover the whole space, and eat extremely fine.

Sow this seed on a dry soil, about the middle of *January*; then, on a moist soil, in the beginning of *February*; again in the beginning of *March*, upon a moist soil. A fourth sowing is made in the beginning of *April*; and a fifth in the beginning of *May*; and every three weeks during the summer season. But these late sowings should be on moist, strong ground, and sowed very thin; otherwise the plants will quickly run up to seed.

Great care ought to be taken to keep *spinage* clear of weeds, which would make it run up, and otherwise greatly injure it.

The seed of these plants is to be gathered from the second crop, sowed in *February*, and hoed to the distance of twelve or fourteen inches asunder, and preserved clear from weeds.

Of SMALL SALLADING.

Under this denomination we place *cresses*, *mustard*, *radish*, *rape*, and *lettuce*, to eat when young: which, with the addition of *endive* and *celery*, compound the best sallad at this season.

In order to raise those small herbs, there must be a hot-bed of about eighteen or twenty inches of dung, and covered with a light and dry earth about four or five inches thick. Or, if you have no dung, prepare in the best manner you are able, the ground under a south wall: dig it and beat it very well, and lay it sloping to the sun, at least a foot higher on the north side than in the front. In either case, draw shallow drills from the back to the front of the bed. Sow the seed of each herb in separate drills, and cover them not more than a quarter of an inch with earth; then cover the bed, or ground, in which the seeds are sown, with a frame and glasses, sinking the back part a little in the ground: but where there is not this convenience, you may do very well by covering a hot-bed for this use with six hoops a-cross, covered with mats: always remembering, that, as soon as the green plants appear, to let in a sufficient air, by raising or propping up the glasses, or lifting up the mats; otherwise they will mould and perish.

In the same manner I have raised *mint* for the same use in *small sallading*, by taking the roots of mint out of the common bed, and covering the said roots, laid flat upon one of these hot-beds, with one inch and a half of earth.

Of PARSLEY.

There are various sorts of this herb. Some authors have enumerated not less than thirteen: our London gardeners confine their cultivation of it to three sorts of parsley, properly so called, *viz.* The *common parsley*, with flat leaves; the *curled parsley*; and the *large rooted* or *Dutch parsley*.

The

The first of these is generally cultivated for the use of the kitchen: but when it is considered that this *common parsley* is not easily to be distinguished by some people from the lesser hemlock, whereby life may be endangered, it must be more adviseable to recommend the cultivation of the *curled parsley*: and they are both treated in the same manner.

At the latter end of *January*, if the weather be open, and the ground fit to be laboured, prepare either a bed of common earth, in a moist, light soil; or dig up the edge of a border, and sow the parsley seed in drills, about half an inch deep. In six weeks time, and seldom before, the plants will appear.

The *curled* sort will do best when sown very thin; and the plants transplanted four inches square.

The *large rooted parsley* is esteemed for its root, which is six times larger than the common; and if hoed in *April*, and allowed room to spread, the root, will grow to the size of a middling parsnip by *September*; and is used boiled, and eaten as young carrots by those who are troubled with the gravel. They are not only wholesome, but very palatable, and may be kept the winter, as carrots are preserved.

Of BEANS.

The *Mazagan* and *small Lisbon* sort are planted before *Christmas*, and again in *February*: of which in their proper seasons. The *Spanish*, *Sandwich*, *Tokay*, and *Windsor*, are for later crops. The *Spanish* and *Sandwich* to be planted in the beginning of *January*: and, about the middle of the same month, plant the *Windsor* and *Tokay*; repeating the planting every fortnight or three weeks, till the beginning of *May*; and in a moist soil till *June*: observing to make the rows of all the large sorts three feet and a half asunder, and to plant the beans four inches distant, and the *Windsor* somewhat more. When grown four inches

inches high, earth up the plants, and continue so to do as the plants increase in height. When they are in blossom, top the plant; which will stop it from spindling, and fill the bean.

The best situation for these early beans, is a warm border, near a wall, pale, or hedge; and those intended to come first, are usually planted in a single row pretty close to the wall, &c. but not before fruit-trees, for that will injure the wall fruit, by impoverishing the ground.

They that would always have prime beans, must be obliged to their neighbours for seed; for when seed is sown year after year in the ground where it grows, it never succeeds so well: therefore, if your land be strong, procure your seed from a lighter ground, and on the contrary: for experience has taught, that by this means there will be larger crops, and fairer fruit obtained.

Some have endeavoured to raise *French beans*, alias *kidney beans*, about the end of the month, upon a moderate hot-bed, in order to transplant for an early crop. But I never knew it to succeed with any advantage to the gardener.

The *common horse bean* may also be planted in this month with success in a strong, moist soil, and open exposure.

Of PEASE.

They that would have an early crop of *pease* sow the *dwarf pea*, upon warm borders under walls, &c. in the beginning or middle of *October*; and protect the plants above ground by drawing up the earth, with a hoe, gently to the stems, from time to time, till the latter end of *January*, or the beginning of *February*; covering them also when needful with some light thing, as straw haulm, &c. to preserve them from very hard frosts.

In *January* prepare a hot-bed to receive these *pease*. The dung must be laid about thirty inches thick; which,

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which, being well levelled, must be covered with a coat of six or eight inches of light, fresh, but not over-rich, earth, laid equally over all the dung. Cover this bed with frames, two feet high behind, and fourteen inches in front, covered with glasses. This must be done three or four days, and the steam let pass off by raising the glasses, before you plant the pease. When the hot-bed is brought to a moderate temperature, take up the plants in such a manner as to preserve the earth to the roots, and set them in rows, that are two feet asunder, and at the distance of an inch or thereabouts from each other in the rows. They then require gentle watering, and to be shaded till they have struck root : which done, give them air as often as the weather will permit. As they advance in height, draw the earth up about the stems, and keep them always clear of weeds. But if the weather proves hot, shade them with mats in the heat of the day ; and, when they begin to fruit, increase the quantity of water, and water them often.

After this comes the *hot-spur*, and that sort of it called the *golden* or *Charlton hot-spur*. Sow this sort on a warm border about the end of *October* ; and when they come up, keep constantly drawing up the earth to the shanks, which will both nourish and protect the plants from the frost : and should the winter prove severe, cover them with pease-haulm, or some other light covering, during the continuance of a severe frost only. As the spring advances, keep them clear from weeds, and draw the fresh earth up to the stems ; but not so high as to bury their leaves ; and keep them clear also from slugs and other vermin, by strewing slack-lime, hot and pretty thick, over the ground.

You may sow a succession of these pease every fortnight or three weeks. This may be continued until the spring of the year ; and the late sowings will be sufficient to continue the early sort of pease through the season ; and may be succeeded by the *Spanish morotto*, a great bearer and hardy sort of pea,

to be sown about the middle of *February*, upon a clear, open spot of ground, in rows about four feet asunder. Drop the pease in drills about an inch distant; and cover them two inches deep with earth.

These are succeeded by *marrowfats*, and other large sorts of pease; to be sown about a fortnight after the *morotto*. These large pease require the distance of four feet and an half from row to row: and the *rose* or *crown pea* should be allowed ten or twelve inches from plant to plant in the rows.

These tall pease require first to be trained up as the others, by drawing the earth up to their shanks, and to be kept clear from weeds: and also, when grown ten inches high, at farthest, to have brush-wood stuck in the ground close to the pease, for them to hang by, to prevent their rotting on the ground in wet weather. The *dwarf pea* does not require these sorts of props.

The large sorts of pease are generally sown for the great crop: I would advise to continue a succession of the *hot-spurs*, in small quantities, through the season, by sowing every fortnight. But those, which are sown late in the season, should have a strong, moist soil; for in hot, light land, they will burn up.

The *marrowfat* is the best of all the large sorts, and will continue till *September*, if sown upon a strong soil.

The *grey pea*, and other large winter pease, commonly sown in fields, are sown thin, in the beginning of *March*, or latter end of *February*, in dry weather, in rows which are three feet distant. They thrive best on a strong, clayey land.

The *common white pea* does best on light, sandy land, and on a rich, loose soil, in drills about three feet asunder, about the middle of *March*, on a warm land; or a fortnight, at least, later, if on cold ground.

The

The *green* and *maple Rouncivals* require a stronger soil than the *white*, and should be sown early in the spring, in drills, and in rows three feet and a half asunder. The ground between should be hoed twice or thrice, kept clear from weeds, and drawn up to the stem.



The



The STOCK of a KITCHEN GARDEN,

In the MONTH of FEBRUARY,

Alphabetically digested.

IN February our kitchen gardens may be so cultivated as to yield the following *pot herbs, salad-herbs, roots, &c.*

Alexanders,	Cresses,	Parsnips,
Asparagus,	Water-Cresses,	Pease,
Beans,	Cucumbers,	Potatoes,
Broccoli,	Endive,	Radishes,
Borecole,	Garlick,	Horse-Radish,
Kidney or	Jerusalem Arti-	Rampion,
French Beans,	chokes,	Small-sallading,
White Beet,	Leeks,	Salsafy,
Burage,	Lettuce,	Savoys,
Burnet,	Loveage,	Scorfonera,
Cabbages,	Marigolds,	Shallots,
Carrots,	Marjoram,	Skirrets,
Cauliflowers,	Melons,	Sorrel,
Celery,	Mint,	Spinage,
Chardons,	Mushrooms,	Sprouts,
Chervil,	Onions,	Thyme,
Corn-sallad,	Parsley,	Turnips.

The WORK and LABOUR in the KITCHEN GARDEN, *in FEBRUARY.*

The business of a gardener increases with the season. He has not only new work to be done ; but he must bestow much labour, time, and industry, upon the stock already sown and planted.

He must continue to sow *cucumbers* and *melons*, as directed in the foregoing month ; and renew the heat of

of his hot-beds with fresh dung : and may continue to make hot-beds as directed for asparagus.

Sow *radishes*, *carrots*, *lettuces*, *spinage*, *small salad*, *parsley*, *French beans*, and *pease*, as directed in the month of *January*.

Sow *Hamburg parsley* in the same manner as you sow *carrots* and *parsley*.

Set *skirrets* in light, rich ground ; *potatoes* and *Jerusalem artichokes* in heavy ground.

Transplant young *cabbages*, in rows two feet and a half asunder for a crop ; and *cauliflowers* about the end of the month, if the weather be mild : and sow more *cauliflower* seed in a slight hot-bed, to secure a succession ; and manage the plants as in *January*.

Sow *cabbages* for autumn use about the middle of this month. Sow also *savoy* seed for winter ; which will cabbage in *October* in better and greater perfection. Besides, the plants produced from this seed, will be the best to gather seed from.

Of CELERY.

The seed of *celery* is sown about the middle of this month, or somewhat later, in this manner : Prepare a bed of very fine earth, well broke. Rake the surface smooth : upon which sow the seed thin, and cover it with light earth, as slight as possible.

Sow *lettuces* as directed in *January*. But this is the best season, at the beginning of *February*, to sow the *cos* and *Silesia* sort. Sow them pretty thick ; and rake them in lightly, as soon as sown. And should the lettuce plants, which have stood the winter, be too thick, now is the proper time to be thinned regularly, so as to be a foot distant each way. Don't hoe, but draw the plants ; and they, if wanted, will plant out for a future crop, if deposited at the like distance in rows, upon rich ground.

Sow *parsnips* and *beets* in an open exposure, in light soil, towards the end of this month. Let the earth be well trenched, at least a spade deep, and the clods thoroughly broken.

This

This is a good season to plant carrots, parsnips, and beets, for seed.

Sow *onions* (if to be eaten young with fallad) about the beginning of this month, and continue to sow the same quantity every fortnight or three weeks, during the spring, upon good ground, not too wet. *Leeks* are to be sown about the same time. And take care that the seed be sprinkled as equally as possible, and raked in.

Draw the earth up to the stems of *beans* and *pease*, in mild weather.

About the middle of this month sow *scorsonera*, thin and even, upon light earth, and in open situation; raking the seed in, as regular as possible. In the same manner sow *salsafy*, *borage*, *angelica*, *burnet*, *loweage*, *clary*, *carduus*, and *marigolds*, any time this month, in open dry weather.

Now it will be time to hoe out the plants of the *Alexanders*, so as to leave them ten inches or a foot apart each way.

Of HORSE-RADISH.

Horse-radish is cultivated by planting the tops of the roots or the cuttings of the old roots, about one inch or two inches in length, so that each piece be furnished with an eye or bud. But the tops or crowns of small off-sets, that arise from the main root, generally produce the best crop. Plant each piece at least fifteen inches deep, in a trench well dug up, at the distance of six inches asunder.

Of GARLICK.

Prepare ground for *garlick*, *rocombo'e*, and *shallots*, according to the quantity you intend to cultivate of each sort: always observing to plant the roots of each in sundry beds, in rows; allowing nine inches between the rows, and six inches between each root in the row.

Of

Of POTATOES.

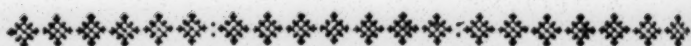
Some plant *potatoes* either in trenches or rows, two feet asunder, or upon a piece of land, well dug up and laid even, with a dibble: or in large plantations, in furrows made with a plough. But which ever of these ways may be adopted, remember that you are to propagate this root from cuttings, as the horse-radish, planted five or six inches deep, twelve or fifteen asunder, and in rows two feet distant from each other.

Of PARSLEY, CORIANDER, and CHERVIL.

Directions for sowing of *parsley* were laid down in *January*: which now may be sown in the same manner as *coriander* and *chervil*, in shallow drills, very thin, in open weather, and covered over with about a quarter of an inch of mould, any time in this month. About the latter end of this month, and on a light, rich, dry spot of earth, sow sweet herbs, as *thyme*, *marjoram*, *savory*, *chervil*, &c.

Prepare beds for *asparagus* to be planted next month. And it is thought to be a good method, when this ground is so prepared, or well trenched and dunged, to sow it with *asparagus* seeds, either to be removed into hot-beds, or to stand the natural season for cutting. To be performed thus:

The ground or bed being levelled, draw a line from end to end, and with a dibble make holes of half an inch deep, and a foot distant. Into each hole drop two seeds, for fear of a failure; and cover them by striking the earth over them. Then remove the line a foot back, for another row. After four rows thus sown, leave a foot way to walk between each bed. But, if it be to be taken up for hot-beds, there may be six rows planted in each bed, and the distance in the rows need be no more than nine inches.



The STOCK of a KITCHEN GARDEN,

In the MONTH of MARCH,

Alphabetical'y digested,

IN *March* our kitchen gardens may be so cultivated, as to yield the following *pot herbs, sallad-herbs, roots, &c.*

Alexanders,	Cresses,	Potatoes,
Artichokes,	Water-Cresses,	Radishes,
Asparagus,	Cucumbers,	Horse-Radish
Beans,	Endive,	Rampion,
French Beans,	Garlick,	Sallading
Borecole,	Leeks,	(small),
Broccoli,	Lettuce,	Salsafy,
Bugloss,	Lovage,	Savoy,
Burage,	Marigolds,	Scorfonera,
Burnet,	Marjoram,	Shallots,
Cabbages,	Melons,	Sorrel,
Cauliflowers,	Mint,	Spinage,
Carrots,	Mushrooms,	Sprouts,
Celery,	Onions,	Thyme,
Chardons,	Parsley,	Turnips,
Chervil,	Parsnips,	And all sweet
Colewort,	Pease,	herbs.
Corn-sallad.		

The WORK and LABOUR in the KITCHEN GARDEN, in MARCH.

Of ALEXANDERS.

Alexanders, or Alifanders, may be sown in March; but August is the best season for that work. For, though it may succeed by sowing it in the spring,
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practice shews that there is great danger of the crop then sown.

The use of this plant is the same as that of *celery*, which has in a great measure supplanted *Alexanders* in the kitchen and at our tables, both in soups and fallads.

Hoe the plants as directed in *February*; and, as soon as the plants have shot up vigorously above the surface, draw the earth up, in dry weather, to each plant; and in three weeks after they will be blanched and fit for use.

Of ASPARAGUS.

About the close of this month, if your soil be dry, and the season forward, plant *asparagus* in the open ground, for a full crop.

Trench your ground well; take out all stones and rubbish; bury a quantity of rotten dung, so as to lie six inches below the surface of the earth. Then, with a narrow pronged dung-fork, carefully fork up the roots out of the seed-bed; so, if possible, choose plants of no more than one year's growth; because they will produce finer roots. And, when you fork them up, shake them out of the earth, and lay them separate, with their heads even, and all one way. By which method they may be planted out more conveniently; in this manner: Stretch a line at one side of the bed, prepared as above; by which you must throw out a trench, exactly strait, about six inches deep, so as not to turn up any of the rotten dung; into which lay your roots, spreading them carefully with your fingers, and placing them upright against the back of the trench, that the trench may stand forward, and be about two inches below the surface of the earth, and twelve inches distant from each other. Then, with a rake draw the earth dug up into the trench again, and lay it very level, so as to preserve the roots in their right position. This done, stretch the line a second time, and in like manner

manner make another trench, and plant the roots therein, as directed above. Continue the same distance from row to row; and at every four rows leave an alley of two feet at least, for the conveniency of cutting the asparagus, &c. See *asparagus* in the month of *February*.

They that endeavour to make the most of their ground sow a small crop of *onions* upon these *asparagus* beds, when finished and levelled. And though you tread in the *onion* seed, and rake the ground level, it will not disturb or injure the *asparagus*. This certainly is a prudential measure: but it must be done with great care; for, in about six weeks, or sooner, after planting, the onions will have raised their seed-leaves upright, and the asparagus also will be come up, and perhaps some weeds. In this case, the bed will require to be hoed, to cut up all the weeds, and to thin the crop of onions. Therefore, do this work in dry weather, that the weeds may die as fast as they are cut up, and always so carefully as not to injure the young shoots of asparagus; and to cut up the onions that grow up near those shoots.

If this work be repeated, and well done about three times, and the season does not prove very wet, it will keep the ground clear of weeds, until the onions be fit for to pull up in *August*; and then, having drawn off the onions, clear the ground well from weeds, and that will keep the beds clean till they require new earth in *October*.

In *October*, when the haulm begins to decay, cut the same down with a knife, to two or three inches of the ground; then dig up the alleys, and throw the earth on the beds, so as to raise them four inches above the alleys, and bury the weeds in the alleys. You might sow, when they are first planted, a crop of onions over the spot; and, in *October*, you might plant a row of coleworts in the alleys. The next spring carefully hoe over the beds, and rake them smooth; and, in *October*, dig up the alleys again as before,

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before, which should be kept supplied with rotten dung, or some other very rich soil. The next spring, gently stir the earth with a dung-fork, and rake it smooth just before the buds appear; and, next *Michaelmas*, cut down the haulm, and dig up the alleys, and throw up as much earth on the beds, that the roots may be covered five inches. The third spring after planting, you may sparingly begin to cut some; but, before the buds appear, loosen the earth, and rake the beds over as before; and, when the buds are four or five inches high, cut some of the largest. The fourth year cut none after the middle of *May*, afterwards you may cut till the beginning of *June*. The dressing is every year the same as for the second year, only every other year lay a little rotten dung, from a melon or cucumber bed, all over the beds, burying some in the alleys. There is a new way of planting, on natural soil, without any dung at bottom: Let the plants stand in beds five feet broad, planted a foot square, and the alleys two feet and a half wide; the haulm the first year should not be cut down till it turns yellow, or the tops are dead; then lay some rotten dung on the beds, two or three inches thick: in three years it will be fit to cut. To have them at any time in winter, you must first every year plant for that purpose, on a piece of ground well-dunged; plant in rows eight inches a part, and the plants four or five inches asunder: let them stand two years, cutting down their haulm at *Michaelmas*. Then, six weeks before you will want to cut, throw a large quantity of new stable horse-dung into a heap, and turn it often for a week; make the hot-beds pretty strong, and immediately cover them six inches deep with earth; and proceed with the hot-bed as directed in the month of *January*. To have good seeds, the beginning of the season, look over some good beds, and mark some of the largest and fairest buds, and stake them up when they branch out; and, when the haulm begins to decay, and the berries

turn red, cut off the branches, and strip the berries into a tub ; at three weeks end, fill the tub with water, and, with your hands, break all the husks ; and, by gently draining off the water, and by giving fresh two or three times, and stirring the seeds about, they will come clean ; then spread them on a mat, and, when they are quite dried in the sun, put them up in bags.

Asparagus stalks, if cut down in *August*, will produce an autumnal crop in dripping weather.

Of ARTICHOKEs.

The *red* sort is esteemed the best. They require a strong, rich soil, well-mellowed with dung ; and are increased by suckers the middle of *March*, when you dress the old roots ; which should be divested of all plants and buds ; excepting the two most promising ones, produced from the undermost part of the root ; which should be separated as far asunder as can be. Then earth them up, and press it close, and crop off the tops of the leaves which hang down. When they begin to show their fruit, cut off all suckers from their stems ; and, when the fruit is ripe, cut the stalks off close down to the ground ; and, by *October*, they will make strong, fresh shoots for earthing. Then cut off all young shoots close to the ground, and dig between every stock, raising the ground to the rows in ridges. If mild weather, this need not be done till any time in *November* ; and, next *February* or *March*, dress them again in the same manner. Let no new dung be laid, or buried, near them, and a crop of spinage may be sown between them. For new plantations, choose such plants from the old ones as are not woody, but clear and sound, with some fibres at the bottom. Then cut off the knotty part which joined them to the old stock, and cut off the large outside leaves pretty low. If the weather be very dry, or the plants have been taken off any time, set them upright in a tub of water for three or four hours ; plant them in
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rows two feet distant, and, if for a full crop, five feet distant; set them four inches deep, and close the earth fast to their roots; and, if the season be dry, water them two or three times a week till they begin to grow. To continue them through the whole season, plant fresh every year. If any of the last spring put forth fruit in autumn, tie up the leaves with a small twig, and lay the earth close up to it, so as the top only shall be above ground; and, in frosts, cover the top with a little straw. If the stocks shoot weak in spring, loosen and break the earth about them, and raise it up in a small hill round each stock. If you plant other things between them, allow eight or nine feet between the rows. They are also raised by seeds in *March*, and transplant them in *April*; and, if they blossom the first year, break them off as soon as they appear.

The *Jerusalem artichoke* will thrive in any soil almost. But you must plant them in rows, two feet asunder, and about fifteen inches distant in the rows. And they are so productive, that the least bit of this root will grow.

Of CABBAGES.

There are a variety of *cabbages*. The *common white*, *red*, *flat*, and *long sided* sorts, are for winter use; by seeds sown the middle of *March*, in good fresh earth. When they have got seven or eight leaves, prick them in shady borders, three inches square. The middle of *May*, transplant them to remain, (if for a full crop) in rows three feet distant, and the plants two feet and an half asunder. In dry weather, water them every other evening till rooted; and, as they advance, draw the earth up to their stems. In *November*, you may pull them up, and trench the ground in ridges, and lay the cabbages as close as possible to one side, burying their stems in the ground. The *Russia* may be treated as the former; only they should be sooner planted out to continue, and may be set

closer together. The *savays* should be sown a fortnight later, and planted closer than the first sorts. The *bore-cole*, as the former sorts, only need to be planted out more than a foot square. The *musk cabbages* also must be treated in the same manner, but require a little more care, as they are rather tenderer. The *early Battersea* and *sugar-loaf* sorts are for summer, and should be sown the end of *July*; and, when they have six leaves, prick them out three inches square; and, the beginning of *October*, plant them in rows three feet apart, and two feet distant in the rows; early in spring, earth up their stems; in *April*, repeat the same; in *May*, tie the leaves of some of them close with a slender osier twig. The *sugar-loaf* kind continues the longest, which may be planted out in *February* instead of *October*: reserve some of the *Battersea* in a shell-weltered spot. The *turnip-rooted* sort should be sown in *March*; and, when an inch high, transplant them in shady borders two inches square; water then till rooted; and, if dry weather continues, give them some water every four or five days: the end of *May*, transplant them two feet square, and water them till rooted; and, as they advance, draw the earth up their stems. The *curled colewort* is sown the beginning of *July*; and, when got strong enough, transplant them in rows nine inches asunder, and five inches distant in the rows; do it in moist weather. The *common colewort*, sow the beginning of *July*, in moist weather; and, when they have five leaves, hoe them out in dry weather; and, six weeks after, repeat the same; and in the same manner treat the *Pyrenean* and *Alpine* sorts. Some persons choose, if they transplant in dry weather, to water the ground well before. To have good seeds, the middle of *October*, pull up some of the best, and hang them up by their stalks in a covered place, for two or three days; then plant them under some fence, to the middle of the cabbage, and earth them up almost to the top; in wet ground, first
raise

raise the borders pretty high ; and, in hard weather, cover them with pease-haulm, &c. After they shoot, support their stems. If very dry weather, water them every week ; and, when the pods begin to change, guard them from the birds ; and, when full ripe, cut them off and dry them. Every fort should be planted at a distance from the others. See page 96.

Any of these may be sown in the beginning or middle of this month, for autumn and winter use. And red cabbage seed and *savoys* should be sown about the middle or latter end of the month, for winter use.

Of the CAULIFLOWER, or COLLIFLOWER.

Sow the seed of this root, for the first time, on the tenth of *August*, on an old melon-bed, &c. after sprinkling a little fresh earth over it. Shade the bed in very hot weather, and give gentle waterings. When they appear, use them by degrees to the sun ; in a month, prick them out on other decayed hot-beds, two inches square, and water and shade them. After they begin to grow, let them not have much water or rain ; the sixteenth of *October*, remove them under hand or bell-glasses. Sow a latter sort four or five days after, and manage them in the same manner. Some persons choose to sow at the end of *July*, or beginning of *August*, and transplant them in their first leaf, three inches distant ; and the middle of *September*, draw up every other, and set them five inches a part, under a south wall ; and then transplant them for flowering at several times, three weeks or a month distant. When transplanted in *May*, let them not have too much sun, and give plenty of water. Shelter them from winds in *March* and *April*. And they sow in the middle of *February*, on declining hot-beds ; and in *March*, in some warm place ; and shelter the plants from frosty evenings ; and, in their first leaf, transplant them six inches a-part ; and, in the end of *May*, or in *June*, remove them for blossoming ; do it in rainy weather. Otherwise

make holes like basons, three feet distant, and water them well before planting ; and, in dry weather, give frequent waterings. When the blossoms appear, break down some of the large leaves to cover the flower. Those which flower after *Michaelmas*, take them up, with earth to their roots, and set them upright in the green-house. The soil should be very rich, and not over dry. To have them very early, in a very rich spot of ground, sheltered from the north and east winds, make beds two feet and an half wide, raised according to the wetness of the soil ; and, the sixteenth of *October*, place the plants two feet and an half distant ; if for a full crop, three feet distant. Put in two good plants, four inches apart, in each place ; if the ground is very dry, give a little water, and set on the glasses, but always take them off in a gentle flower ; in ten days, raise the glasses towards the south, three or four inches high, night and day, except in frosty weather ; in warm weather, in *November* and *December*, uncover them in the day-time. The end of *February*, in mild weather, transplant the weakest of the two plants from under each glass, with as much earth as possible to their roots ; and plant them, at the same distance, on another spot of very rich earth ; and draw the earth up to the stems of the others. When they fill the glasses, raise the earth up round them four inches high, for the glasses to rest on ; and the beginning of *April*, begin to harden them by degrees to the open air. When the flower is full grown, pull the plant up in the morning.

Be not over-fond of watering *cauliflower* plants in summer : for, to water them in the heat of the day, scalds them ; and, if the land be not good, all the watering in the world will not make it fit for *cauliflowers*. Besides, if once they have been watered, and the watering discontinued, it would have been much better never to have watered them at all. Therefore you have no more to do, than to prepare good soil : to keep the ground clear of weeds, &c. Plant them

them in an open, free air, and draw the mould up to their stems as they grow up. See page 96.

Continue to sow *carrots* and *parsnips* at the beginning of this month, in a light ground, and an open situation.

Of FRENCH BEANS, or KIDNEY BEANS.

There are three sorts of *French* or *kidney beans*: The *common white* or *Dutch*, *Batte-sea*, and *u;right*. These are sown under fences, in a dry soil, the end of *March*, in dry weather, in shallow furrows two feet and an half distant, and the seeds two inches asunder, and an inch deep. After they come up, if their stems are tall, draw the earth up to them in dry weather; but cover none of their leaves. To have a succession, sow about every three weeks, from the beginning of *April* to the middle of *July*. They should be sown in drills from north to south; and, in hot weather, water your drills before you plant them, but give no water afterwards, at least till they come up. To have them early, sow them on a moderate hot-bed, the end of the first week in *February*; the earth five inches thick on the bed, and let them have plenty of air. Some sow them on a hot-bed for winter, five inches apart. the first week in *September*; and some sow them in baskets, under a south wall, in *October*, and afterwards forward them on hot-beds. To have them earlier than on the common ground, in *March* sow them in rows pretty close, on a gentle hot-bed, arched over with hoops, and covered with mats; bring them up pretty hardily; and, the beginning of *April*, in settled weather, transplant them, with as much earth as possible to their roots, in some well-dug, warm border, under a fence. See page 90.

To have good seeds, let a few remain ungathered in the height of the season; and, when they are ripe, in a dry day, pull up the plants in autumn, and

spread them abroad to dry ; then thresh them out for use.

Sow *beans* and *pease*, of all sorts, as directed in *January*.

Of ONIONS.

There are six sorts of *onions*, viz. The *Strasburgh*, *red* and *white Spanish*, *scallion*, *Welch*, and *Ciboul*. The first three are for winter use ; sow them the beginning of *March*, not too thick, in good, rich, sandy ground ; and, six weeks after, hoe them two inches square ; a month after, reduce them to three inches square ; and, a month after that, hoe them out to six inches square. When the blades shrink and fall to the ground, draw them up, cut off the extremity of their blades, and lay them on a dry spot of ground, turning them every day for a fortnight. In dry weather, rub off all the earth, and lay aside all faulty ones ; then put them in the house, not too thick, nor on a ground-floor. The closer kept from air, the better. Once a month take out all that decay. The *Strasburgh* is the best for keeping. The *Scallion*, by parting their roots in spring or autumn, and plant them three or four together, in a hole six inches square. The *Welch*, for spring use, are sown the middle of *July*; the blades die away the middle of *October*, and come up again in *January* ; in *March* draw them up for use, and then plant others out to six or eight inches distance. To have good seeds from this sort, let the roots remain, and they will produce good seed for the two next years ; and will continue good for many years, if transplanted every second or third year. For good seed of the other sorts, in spring choose the most firm and most oval-shaped roots ; and, in good ground, well-dug, plant them the beginning of *March*, in rows a foot asunder, and the root six inches distant, and six inches deep. When the heads of the seed-vessels appear, put down some stakes in rows, and pass a string of packthread round them. When the

the seed is ripe, take off the heads, and spread them on a cloth in the sun, and shelter them in nights and bad weather. When dry, beat the seed out, and expose it one day to the sun. The beginning of *August*, you may sow a crop of the first three sorts, in a warm border, to stand for the winter.

Of TURNIPS.

The *turnip* most in use with us is of an orbicular depressed form, with a very fleshy root : of which sort there are various kinds. But our gardens and fields now confine their cultivation of this root to what is called the *early Dutch*, to supply the markets in *May* and *June* ; and to the *large green-topped turnip*, which is preferred by our farmers for a general crop : it is also allowed to be preferable in feeding of cattle, and to be the softest and sweetest root, when grown large, of any of the kinds : and they have sometimes grown so large as to weigh from twelve to twenty-four pounds weight. I have seen one of ten inches diameter, as sweet and tender as any small root.

Turnips delight in a light, sandy, loamy, soil, not rich ; but if moist, the better these roots will thrive : and about *London* they are sown successively from *March* to *August* included, by those who supply the markets : but in the country, where the turnips are sown for feeding cattle, the seed-time of this root is from the beginning of *June* to the middle of *August*.

Those sown in the spring must be watered in dry weather, otherwise, if the season prove dry, the young crop will be devoured by the fly. And those seeds sown in *April* or *May* should always be upon a moist soil ; always upon an open spot of ground, and pretty thin. The plants will come up in about ten days ; and then the fly will be very busy with them, in a dry season when they are in their seed-leaf. When they shew four or five leaves, the turnips should be hoed, to destroy the weeds and thin the plants, leaving the remaining ones six or eight inches asunder each way,

if

if for the use of the table; but twelve or sixteen inches, if for cattle.

In order to prevent the fly taking turnips, the following means have been used with success: 1. Steep the seeds all night in water impregnated strongly with flour of brimstone mixed in it. 2. Steep the seeds all night in water, with a quantity of the juice of horse-aloes mixed. 3. Sow foot or tobacco dust over the plants as soon as they appear above ground. But, as it has been observed, that the fly never attacks these plants till stunted in their growth, I must think that whatever adds vigour to the young plants, will prevent their being destroyed by the fly.

The cultivation of *celery* must be continued in this and the next month, by sowing it as directed in *February*: and, in about six weeks after the plants appear, transplant them four inches square, upon a well-exposed place. And in the middle of *June*, place some of the first sowing in trenches ten inches deep and ten inches wide, in a light, rich soil. Prune off the roots and tops of the plants, and place them five inches asunder: and, as they increase in height, earth them up within four or five inches of their tops.

Of CHARDOONS, or CARDOONS.

Charoons are propagated by seeds on light earth, the beginning of *March*; and, after they appear, often water them in dry weather. The beginning of *May* transplant them in light, rich earth, in rows a foot asunder, and place the plants eight inches distant; constantly water them till rooted. The middle or end of *June* transplant them, in a well-dug spot of light, rich earth, in rows four feet square and water them as before; in *August*, in a dry day, gather the leaves up regularly without bruising them, and tie them round near the top with a hay-band; and bank the earth up to them within ten inches of their tops, but let none fall into the center of the plants; as they advance in height, constantly repeat the same. The first

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first planted out will be fit for use in *September*, and those planted out later will come in *October*. For good seed, preserve some of the most vigorous, and in severe frost cover them with pease-haulm, &c. the next spring gradually take away the earth from round them, and the seed will ripen in *August*.

You may still sow *garlic*, *scorzoner*a, *salsafy*, and *parsley*, in the manner directed, last month.

Take slips from the old roots of *chives*, and plant them on good ground, at the distance of eight inches.

If it has not been done before, don't neglect in the beginning of this month to sow *thyme*, *hyssop*, *succory*, *sweet marjoram*, *bugloss*, *smallage*, *dill*, *clary*, *orach*, *borage*, *fennel*, *burnet*, *marigolds*, *sorrel*, and the seeds of all herbs of the same kind.

Propagate *pennyroyal*, *baum*, *tarragon*, *tansey*, *camomile*: and of *sage*, *thyme*, *hyssop*, *savory*, *rosemary*, *southernwood*, *rue*, *lavender*: and of other aromatic plants, by slips or cuttings. The slips or suckers are the most certain; because they coming up from the bottom generally have a root. The cuttings should be from five to seven inches long of a last year's shoot. Plant them in a shady border, two parts out of three in their lengths, five or six inches apart: and these will make handsome plants in three or four months, if watered in dry weather. But if the slips be older than last year's shoots, they will not take root.

Of MINT.

There is a vast variety in this plant. There are no less than eighteen *species* thereof. But we shall confine our directions to those *species* known by the name of *spear-mint*, *pepper-mint*, and *orange-mint*.

Spear-mint is described as having spiked flowers: by some called *hart-mint*; by others *Roman-mint*. This is what is cultivated for culinary use and medicine by our gardeners.

Pepper-mint has a smaller leaf than *spear-mint*; of a darker green colour, and sawed on their edges. Its use is merely medicinal.

Orange-

Orange-mint differs both in make, colour, and taste, from both the former. The leaves are much broader: the indentures on the edges are deep, and they end in acute points: they are tinged, and smell much like the out-rind of an orange; and is cultivated for no other use than its pleasant smell.

All the sorts are easily propagated by parting their roots in spring, or about the end of this month, or by cuttings in any of the summer months; and best in a moist soil.

Plant the cuttings at the distance of five or six inches or more: and water them well, and never let a bed of mint continue longer than three years, without parting the roots: for the roots will mat so together, that they will mould, rot, and decay, if permitted to stand longer.

Baum is to be propagated after the same manner; and this wholesome plant will grow any where.

Both these plants are cut down when about one foot high, in a dry day, and spread to dry in the shade. Then tied up in bunches for winter use.

Lettuce-seeds should be sown at the beginning, in the middle, and at the end of *March*, in order to preserve a regular supply, upon a spot of rich ground in an open situation. The seeds to be sown gently upon the surface, and raked in lightly, and even.

Towards the latter end of *March*, sow *savoy-seed* for a principal crop, to supply between *Michaelmas* and *Christmas*.

Attend the *cucumber* and *melon* beds diligently. Take care they maintain a proper degree of heat, lively, but moderate. This is done by a lining of new horse-dung, as directed before: giving the plants fresh air discretionally; and refreshing them very moderately with water, in a mild sun-shine day, between ten and two o'clock.

About the 20th of this month sow the *cucumbers* and *melons*, intended to be raised under bell-glasses. And make hot-beds in the beginning of *March* to plant the

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the cucumbers or melons upon, which were sown in the preceding months.

Spinage must now be kept clear of weeds: and that which has stood the winter requires to have the earth stirred about it. For these purposes use the hoe, so as to thin the plant of the early crop of spring spinage to five or six inches distance.

Radishes, for a succession, ought to be sown in the beginning, middle, and end of this month, in an open spot of light and somewhat moist earth.

Thin the crop upon the ground, so as to leave a space of two or three inches between each radish. Clean them from weeds, and water them in dry weather.

Sow *marrowfats*, or any other *pease* as directed in *January*. And draw earth to the stems of such beans and pease as are grown some height.

When the beans are in full blossom, pinch off their tops, and carefully cut away all suckers that may break out, and grow from the bottom of their roots. By which means you will obtain a better crop, and sooner by fifteen or twenty days.

Cresses, *mustard*, *radish*, *rape* and *turnip-seed*, must be sown in separate drills, about three inches asunder, once a week, for a supply of *small sallading*.

Purslain may be sown in the natural earth, at the end of this month, upon a rich soil.

Before the end of *March* you must sow *capsicum-seed* in a hot-bed. As soon as the plants appear, give them a good deal of air, and water them frequently. By which means they will be fit to transplant into beds of rich earth and open ground, about the middle or latter end of *May*.

The Love Apples, or *Tomatas*, a most savoury root in soups, &c. are propagated by sowing their seeds on a moderate hot-bed in *March*; and the plants having shot up two inches above the surface of the earth, should be transplanted into another moderate hot-bed, at about four inches distant from each other, and shaded

shaded till they have taken root : and to prevent being drawn up too much, they must have a large share of air after they are well rooted. See in *May*.



THE KITCHEN GARDEN during these three months has produced

For Raw sallads.

Young tops of	Lettuce,	Rampion,
Alexanders,	White Mustard,	Red Sage,
Chervil,	Tarragon,	Samphire,
Chives,	Mint,	Scorzonera,
Corn-sallad,	Young Onions,	Celery,
Cresses,	Radish,	Sorrel,
Cucumbers,	Horse-Radish,	Succory.
Endive,		

For BOILED SALLADS.

Asparagus,	Carrots,	Potatoes,
B. ets,	Turnips,	Artichokes,
Cabbages,	Leeks,	Skirrets,
Coleworts,	Onions,	Spinage.
Savoys,	Parfnips,	



The STOCK of the KITCHEN GARDEN,

In the MONTH of APRIL,

Alphabetically digested.

IN *April* our kitchen gardens may be so cultivated as to yield the following *pot-herbs, sallads, roots, sailad herbs, &c.*

Asparagus,	Cabbages,	Onions,
Artichokes,	Cauliflowers,	Pease,
Lisbon and	Chervil,	Parsley,
Windfor	Corn-sallad,	Purslain,
Beans,	Cresses,	Radishes,
French or Kid-	Cucumbers,	Sage,
ney Beans,	Endive,	Samphire,
Baum,	Lettuce,	Sorrel,
Beet,	Mint,	Spinage,
Borage,	Mustard,	Succory,
Bugloss,	Nasturtiums,	Turnip.

And all that remain in stock from the productions of former months.

The WORK and LABOUR in the KITCHEN GARDEN,
in APRIL.

Asparagus may yet be planted, according to the directions already given, and the plants will take root very freely: but this plantation must be finished before the fifteenth of this month. If there be any to be cut, do it with great care. *See page 73.*

Continue to sow the *Windfor* bean in drills five or six inches apart: having first watered the drills, and soaked the beans three or four hours in water, before they are planted.

Of

Of FRENCH BEANS.

This is the best season to sow *French* or *kidney beans* for a crop. Of these there are three sorts common in our gardens, viz. *Speckled dwarf*, the *Battersea bean*, which bears early and near the root, and another which grows six feet high.

Sow these beans in the first week of *April* in drills and a fresh light soil, about four inches apart, and cover them with earth raised in a ridge to keep the wet from them. The *Battersea* bean requires no more than two feet between drill and drill; and need no stake to support their stalks. But the tall sort are to be sown in rows with alleys, two feet and half a wide between them, and must be staked up.

If *French beans* be planted in wet weather, they will root in the ground. Our gardeners give the preference to the *Battersea white* and the *speckled dwarf*. For which, choose a plot of dry ground in a free situation, open to the sun, and defended from cold-winds; and sow them three inches a part in drills, one inch deep, and the drills thirty inches asunder.

N. B. From this time continue to sow a fresh piece of ground every three weeks, to succeed one another, till the middle of *July*, and refresh them with water in *June*, and *July*, if it proves a hot season. See the directions for *French beans* in *March*.

The end of this month or the beginning of *May* is the right season for the *Spanish marotto* pease, called *nonpareils*: and it is a good time to sow *dwarf pease* about the beginning of *April*.

Sow the *marotto* three inches a part, in lines with an alley of three feet between. At six inches high, earth them up: and set a row of boughs, about six feet high, on each side, for them to run up.

The *dwarf* pease seldom run higher than half a foot. They are sown at four or five inches a-part, in lines about eighteen inches from one another.

For further directions, see *pease* in the month of *January*.

Of

Of MELONS.

The work begun with the *melon-seed*, sown in the beginning of *March* on the hot-bed for ridge plants, will be ready in about a week after sowing to plant out. Plant them four inches apart, and there let them remain under glasses till their first leaf be about the bigness of a crown-piece. And when the second or third joint appears, cut off the prime leader from each plant near the ear-leaves, and they will each of them quickly put out three other runners, which will produce fruit in great plenty: and those are also pruned commonly at every third or fourth joint.

These plants thus prepared will be fit to plant on ridges about the latter end of *April*, which ridges are to be made in this manner:

Dig a trench two feet and half wide, and sixteen inches deep: lay at the bottom of this trench a bed of horse-litter, prepared for a hot-bed, about two feet thick, spread equally, and trod gently: and then at the distance of about four feet, in the middle of the ridge, make holes, each ten inches over and six deep. Fill the holes with prepared earth. Then cover all with the same sort of earth, about five inches thick: and make the bed flat four feet wide. About two days after, plant *melon* plants, in each hole, and cover them with glasses and mats.

Continue, as directed in last month, to sow *small sallading* and radishes.

Sow *lettuces* of any sort, at any time in this month; equally and not too thick, rake them in lightly, upon rich ground, in an open situation. And transplant such *coss* and *Silesia*, as were sown in the two preceding months, upon good ground, spread with a little rotten dung dug well into it. Plant them ten or twelve inches distant: and water them in dry weather till they have struck root.

Spinage

Spinage may still be sown, where required : and the plants sown last month, must be hoed and thinned to four or five inches distance.

Attend your *cabbage* and *savoy* plantations. Sow *savoy* and *cabbage*-seed for a full winter crop : and draw up some earth about the stems of forward *cabbage*-plants.

In the beginning of this month prepare good beds of earth, about three feet and half wide in an open situation : into which transplant such *cabbage*-plants as remain to be transplanted in the spring. Water them as soon as planted.

Also prick out into the same kind of beds, the *savoy* and *cabbage*-plants sown in *February* and *March*. And at the same time clear the seed-bed from weeds, and give it a good watering.

Draw up the earth to the stems of *cauliflowers* : and for further direction, see the month of *March*.

This is the time, about the end of *April*, to prick out the young *celery*-plants sown in *February*. Make beds three feet wide of rich light earth. Dry it well : break the earth fine, and rake the surface very smooth. Prick in the best plants at the distance of about three inches every way. Give them a moderate watering till they take root. Then at a month's end, plant a few of them out for good into trenches. I say a few, because these early grown-plants will soon run to seed, after they are fit for use.

Therefore it is the best practice to sow more *celery*-seed in the first week of *April*, to succeed those sown in *March* ; upon a small bed of rich, light earth, well cultivated. Sow the seed equally, but not too thick, and rake it in lightly, so that the earth may not cover it more than a quarter of an inch. Over which fix a few hoops, with a mat to cover the bed from the sun ; and water the *celery* now and then lightly, and the seed will grow freely, and the plants rise well.

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Carrots and *parsnips* may be sown yet with success in the beginning of this month. But that would be better done sooner; as directed before.

This is the best season for sowing *nasturtium* seed. Either sow them with a dibble, in such places as you see proper and convenient; or in drills, one inch deep, and at three inches asunder.

You may pursue the direction given last month for sowing, and for propagating by slips, suckers, and cuttings, *borage*, *bugloss*, *clary*, *carduus*, *marygold*, *burnet*, *forrel*, *chervil*, *coriander*, *parsley*, *thyme*, *sweet-marjoram*, *savory*, *hyssop*, *mint*, *tarragon*, *tansy*, *sage*, *rosemary*, and *lavender*: *rue*, *lavender-cotton*, *wormwood*, and *southernwood*.

Hoe and thin your *turnip* plantation, leaving the plants six or eight inches from each other: and sow more *turnip-seed* thin and equally, upon an open piece of ground, and rake it in lightly, and the plants will appear in a few days, if the sun be not too hot.

The middle of this month is the proper season to sow *scorzónera* and *salsafy* for a principal crop. For that sown before is now running to seed.

If you would sow *purslain* in the common ground, pick out a piece of rich light earth; and when sown, shade it from the hot sun till the plants are come up, and water them after in dry weather.

Continue to sow *beans*. The long podded bean, a remarkable great bearer, is a proper kind to be planted at this time. But you must sow them at a yard between the rows.

You must still sow the *Windfor* and *Sandwich*, or any of the large beans.

But none excels the *white blossom bean*, and the *mazagan*, for eating. Besides their stalks are generally loaded from top to bottom with pods: so that their quantity makes up for their smallness. These may be planted any time this month in rows, thirty inches apart.

In the last week of this month sow the seeds of *gourds* and *pumpkins*, in a hot-bed: or, upon a hole
of

of hot dung, covered with four or five inches of light earth. Sow the seed in drills, drawing the earth about half an inch deep upon it; and cover all with a glass. When the plants appear, raise the glass every day to give plenty of air.

As this is a season when weeds begin to feed, the gardener must be very diligent to keep them under and to destroy them, before they get the better of their crops, especially *onions*, *carrots*, *parsnips*, &c. which are of small growth, and some weeds soon overtop. And the best time for hoeing weeds is, in a dry day.



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The STOCK of the KITCHEN GARDEN,

In the MONTH of MAY,

Alphabetically digested.

IN May our kitchen gardens may be so cultivated, as to yield the following pot-herbs, sallad-herbs, roots, &c.

Asparagus,	Endive,	Radishes,
Garden Beans,	Gourds,	Savoys,
French Beans,	Lettuces,	Salsafy,
Borecole,	Love Apple,	Scorzonera,
Broccoli,	Melons,	Small-sallading,
Cabbages,	Mint,	Spinage,
Carrots,	Nasturtiums,	Sage,
Capficums,	Onions,	Turnips,
Cauliflowers,	Parfnips,	All oromatic
Celery,	Parsley,	plants.
Cucumbers,	Pumpkins,	

The WORK and LABOUR in the KITCHEN GARDEN,
in MAY.

Beans, especially the sorts mentioned in our directions for last month, may be sown at any time till the middle of this month. Draw up the earth to the stems of your growing beans.

Pease, in like manner, may be sown for a regular supply, of which the *marrowfats*, *hotspur*, and *dwarf* are the best sorts. But the *dwarfs* generally succeed best when sown at this season.

Draw up the earth to the stems of the tall sorts: and accommodate them with sticks, if not done before.

Brown-

Brown-cole, or, as some call it, *bore-cole*, is either *brown* or *green*, and well worth raising for family use. This plant has a stem from three to five feet high; and is so hardy as to stand the severest winter.

The seed of *brown-cole*, is to be sown in the first week of *May*: though some advise to do it a month sooner, if it be expected to raise very tall plants. Sow the seed in an open spot of good ground: rake it in, as you do cabbage-seed; water the plants moderately in dry weather. The plants will be fit to transplant in about six weeks. These plants are a very good supply all the winter. And in *February* and *March* following their long stems will be loaded from top to bottom with most excellent young sprouts.

Plant out the remains of your winter stock of *cabbages* and *savoys*, in rows two feet asunder; at the distance of eighteen inches from plant to plant. Do this work in moist weather: and always give each a little water, as soon as they are planted.

Earth up the early *cabbages*, which about the middle of *May* will begin to turn their inner leaves for cabbaging, which you may promote by gathering the leaves of the plant together with the hand, very regularly; and tying them together with strong bass, but not too tight. This will make their hearts more tender and much whiter; and make them fit for use a fortnight sooner.

The *savoys* sown in this month, for cabbaging in *December* and for stock till *March*, must be done before the fifteenth day of *May*.

Plant the remainder of the *cauliflowers* raised this spring from seed, in the manner already directed. And in the last week, and not before, of *May*, sow *cauliflower-seed* of the last year's saving for flowering in *October* and *November*. Do this upon a bed of rich earth, three feet wide, moderately thick, and rake the seed carefully in. Sprinkle the bed often in dry weather, and shade it from ten to three every hot sunny day.

Broccoli.

Brocoli. There are three sorts of this excellent plant; viz. The *purple*, the *white*, and the *black*. The *black*, or *brown* sort is esteemed for being hardy, and will stand those severe winters, which cut off the other sorts: but the *purple*, and the *white* are in greatest reputation.

The *brown* or *black* sort must be sown in the middle of *May*, and managed as has been directed for common cabbages. This plant does not form so perfect a head as the others: and the stems and hearts are the parts thereof fit for use.

The *purple*, which some call the *Roman brocoli*, must be sown in the last week of *May*, or first week of *June*. When the plants shoot eight leaves, transplant them into beds, as directed for the common cabbage, and towards the end of *July*, plant them for good, into a rich light soil, well sheltered, but not under trees; and in rows at eighteen inches distance from each other, and two feet from row to row. Their heads, like a *purple cauliflower*, will appear about the middle of *December*, and continue eatable till the middle of *April*. The heads should be cut off, before they run up to seed, with about four or five inches of the stem: and you strip off the skin of the stem before they are boiled. After the heads are cut off, a number of side shoots will sprout from the stem, with small heads, which are as palatable as the large ones.

The *white* sort, by some called the *Neapolitan* or *Naples Brocoli*, resembles a cauliflower somewhat in colour; and so nearly in taste, as scarce to be distinguished from it.

It will be proper to sow another crop of *brocoli*, to supply the table till the month of *April* following.

Save some of the finest heads of the first crop for seed. And to give the seed plants more strength, strip off all the under shoots, as soon as they appear; and leave only the main stem to flower, and seed: always taking care that no other sort of cabbage be permitted to seed near them.

After the heads are all gone, *brocoli* affords plenty of excellent sprouts.

Carrots and *turnips* intended for the table in *July* or *August*, must be sown in this month. Sow these seeds as directed in *January*, *February*, and *March*.

Hoe and thin the *turnips* sown in the former month, allowing seven and eight inches between plant and plant. But I would rather advise to thin carrots by hand first, while young, which affords an immediate supply for the table, with such as are pulled up; leaving the others at four inches apart: and thus keep thinning the crop till the distance increases to six or seven inches asunder, every way, which is the least distance also to be allowed to parsnips.

When you use the hoe, which is the best way to destroy weeds, you will also here fit the roots by loosening the surface of the ground, and cutting away every thing that preys upon the plant.

The *onion-bed* must be well weeded and thinned, so as to leave the distance of four inches each way between plant and plant.

Continue to plant *kidney* or *French beans* (as directed in *March*) of the dwarf kind; viz. the *speckled* and *Canterbury-white*, about three inches asunder in drills thirty inches apart.

But the most profitable for family use are the running kinds of *French beans*, viz. the *scarlet flowering bean*; the *white Dutch*, &c. which must be allowed more room. Their drills must be three feet and a half distant from each other, and the beans placed at five inches from one another, about an inch and half deep. They must also be stuck, every one, and will twine naturally round a smooth stick or pole ten feet high. And those that are planted in this month will last till they are destroyed by the frost.

The *melon-beds* now require particular attention. The early plants in frames will shew fruit; and some will set and smell, so that it will be needful to preserve a proper degree of heat in the beds, especially so as to guard them from cold nights, which often
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happen in the month of *May*, by a lining of dung, as directed before; nevertheless the plants in frames must be discretionally allowed free air every day, by raising the upper ends of the lights, two, three, or four fingers breadth in their height, in the heat of the day.

About six in the evening cover the glasses and frames with mats; which must be taken off about seven, or sooner, in the morning, if it proves very warm. But if the day turns out very hot, shade the fruit and plants from the sun during the greatest heat, for two or three hours.

If the plants become so luxuriant, as to reach the glasses, put a brick under each corner of the frame to raise it about six inches.

The *melon-plants* that are now ready to be planted out in ridges, and intended to be reared under glasses upon holes, are to be managed as directed, under that head in the month of *April*.

The *cucumber* season advancing now apace, these plants under frames as yet must be watered moderately, at least twice a week, and at three o'clock in the afternoon. Give them also plenty of free air every mild day; by raising the upper end of the lights, about seven o'clock in the morning, a little matter, and higher as the heat of the sun increases. These lights must be shut down close in the evening: and the plants must be shaded from the sun in very hot days. And the frames also must be raised, as directed in the management of melons, when the plants grow too high for the glasses.

The plants under hand or bell-glasses must be set out. For this purpose choose a rich spot of ground; in which dig a trench two feet six inches wide, and twelve or fifteen inches deep, and lay the earth dug out neatly along the sides of the trench. Fill the trench and raise it about four inches higher than the surface, with fresh hot dung. Over which draw the earth from the sides, so as to lie eight or nine inches thick over the top of the dung; and six inches on

each side of the bed, further out than the dung. Mark out holes, at the distance of three feet six inches from each other, along the middle of the bed. In each of which holes place four good plants: give them a little water, and cover all up immediately with glasses, as close as possible, and keep them shaded till the plants have struck root. After which let them have air every day in mild weather, in the manner prescribed for *melon-glasses*.

Or, where plants can't be had, make the holes in form of a shallow basin, above ten inches diameter, and an inch and half deep. In each of which holes, drop eight or nine seeds about the 10th of *May*. Cover them with half an inch deep of earth; and then put on the glasses. About twelve days after, draw all the plants except four of the strongest in each hole; and draw up the earth about the stems of those plants, that are left in each hole.

But if it be designed to sow a crop only for pickling-cucumbers: the proper time to put in seed for that purpose, is about the 20th of *May* in the natural ground. A work, however, to be deferred till the first week in *June*, if the weather in *May* proves cold or very wet.

For this purpose prepare a bed of rich free ground five feet wide. Mark out the holes, three feet asunder along the middle of the bed. Shape them like a basin twelve inches diameter, and about one inch and half deep. In each of which sow ten seeds, and cover them about one inch and half with earth. If the weather proves dry and hot, sprinkle the holes very moderately with water. And when the plants have been up about fourteen days, thin them so, as to leave not more than five in each hole. Or, you may transplant stock from the holes raised under glasses, in cold wet weather.

The *capsicums* sown in *March* or *April* must now be planted out in moist weather, any time in the third or fourth week of *May*, upon a spot of rich ground

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raked level, in rows, a foot asunder every way, and water them.

The *lettuces*, sown in *April*, must now be planted out in rows twelve inches asunder upon a rich spot of earth, not much exposed to the sun, dug nearly a spade deep, and raked smooth. Do this work in the evening, and water them gently.

But to have a constant supply, it must not be forgot to sow lettuce-seed, (either *coss*, *Dutch-brown*, *Silesia*) twice or thrice in *May*, upon an open situation, and a rich and light ground. Separate each sort by itself: rake them in with an even hand; and in dry weather refresh the beds often with water.

Clean the beds of large rooted *parsley*, *scorzonera*, and *falsafy* from weeds; and the plants hoed to about six inches distance from each other. And you may also continue till the 15th of *May* to sow the seeds of *scorzonera* and *falsafy* for a winter crop.

Spinage will succeed if sown any time this month in an open situation. And the stock upon the ground will perish and come to nought, if it be not well weeded and thinned by a hoe, so as to leave the plants about five inches apart. This sowing may be repeated all summer every fourteen days.

Small sallading, where a constant supply is wanted, must be sown every five or six days upon a rich shady border, thick, and covered lightly with earth. They must be watered every other day moderately, when the weather proves dry.

Our gardeners have numbered up no less than five sorts of *endive* or *succory*, which upon the best experience are cultivated by seeds sown in the decrease of the moon in *May*, the middle and end of *June*, and the middle of *July*, in a good, rich soil and open situation. They should not be sown too thick; and, when two inches high, transplant them a foot square, and trim off the tops of the largest leaves; water them every other evening till rooted. When they are grown to almost meet each other, tie up some of

the largest in an afternoon in very dry weather; gather the leaves up regularly, and take off all decayed ones, placing the outside ones as near as possible round them, according to their natural growth; tie them two inches below the top very close; about a week after, tie them round again about the middle. Only tie up the largest at first, and every week after tie up others. They will be blanched in three weeks or a month, and then will not continue good above a fortnight. All the last sowing transplant under warm walls, &c. and in very severe weather cover them with pease-haulm, &c. It is only the first two crops that are tied up. After *Michaelmas* take up the plants of the last sowing in a dry day, and make sloping trenches, and plant them on the sunny side; let only the tops of them remain out of the ground: in three weeks they will be blanched. Keep planting of fresh ones in trenches every fortnight. The last taken out of the seed-bed should not be set to blanch till *February* or *March*. To have good seeds, take some of the largest, soundest, and most curled sorts, from the last crop, before any are set to blanch, and plant them under pales, &c. eighteen inches distant in rows, not nearer than six inches to the pales. If the weather be mild, do it the beginning, otherwise the middle of *March*. When the flower-stems begin to advance, keep them all close to the pales, &c. with a string of packthread. As soon as they are ripe, cut off the stalks, and dry them on a cloth in the sun; then beat out the seeds, and, after they are well dried, keep them in bags in a dry place. Do not wait for all the seeds to ripen on one plant.

Radishes may still be sown for the table: but require much watering, both before and after the seeds shoot.

But this is the proper time to transplant *radishes* for seed, between the first and fifteenth day of the month. The roots must be just in their prime, long, perfectly straight, and with short tops; set eighteen inches asunder in rows, on an open piece of ground. And this

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this plantation must be immediately well watered to settle the earth.

Having pricked out the *celery* from your seed-bed, according to the directions in last month's work, sow more seed for a latter crop about the 10th day of May, in the same manner as before directed, remembering, as the heat of the sun now increases, you must shade the *celery seed-bed* from ten to three o'clock every day: and refresh the bed every other evening with a moderate quantity of water. By which means you will raise a crop to plant in trenches, in *August* and *September*, and to cut for the table till *January* and *February*.

The *love-apple* or *tomatos* will now be fit to transplant into pots or borders near walls, pales, or hedges, in a warm aspect, against which the branches may be regularly fastened, as they extend, without which method the fruit will not ripen. But by thus training up the plants, you may expect ripe fruit in *July*. Vacant places between wall-trees suit well for these plants. And a stout plant in one place is sufficient. Water every plant as soon as planted: shade them from the sun, till rooted, and guard them from the cold nights till the season grows milder.

They that delight in *gourds* and *pumpkins* must observe, that after the 15th day of this month, they may remove the plants of the *gourds* raised in a hot-bed, as directed in *April*, to the natural earth near to a fence or wall, or other thing able to support the vines, when spread, and to keep the fruit from the ground. But the *pumpkins* are such a large sort of gourds, that they require to be transplanted into an open spot, eight or ten feet from each other, where their vines may have room to extend themselves.

You may also sow more *gourd-seed* on a hot-bed, or cucumber or melon-bed: which will be ready to transplant into the open ground, when the plants have got rough leaves, and the first rough leaf is two or three inches broad.

Sow *parsley* in a shady border.

Sow *purslane* in a bed of light rich earth, in the open ground, moderately thick, and cover it about a quarter of an inch with earth.

Lavender, sage, savory, thyme, marjoram, mint, and all *aromatic* plants are propagated now from slips, suckers and cuttings, planted in a shady place, and watered in dry weather. See *March* and *April*.

As the stems of *onions* set apart for seed, and of *cabbages, brocoli, savoys, &c.* are now grown to a considerable height, and their heads take much wind, it requires some care to prevent their breaking down by wind and heavy rains. As for the method of supporting them, as it depends greatly upon every body's situation and convenience, it will be best to leave it to the discretion of every body concerned in a garden, to provide the best they can against those accidents.



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The STOCK of a KITCHEN GARDEN,

In JUNE,

Alphabetical'y digested,

A rtichokes,	Cucumbers,	Parsnips,
Asparagus,	Endive,	Parsley,
Garden Beans,	Gourds,	Pumpkins,
French Beans,	Lettuces, various	Radishes,
Brown Cole,	kinds,	Savoys,
Brocoli,	Love Apple, or	Salsify,
Burnet,	Tomatos,	Scorzonera,
Burrage,	Marigolds,	Small Sallading,
Cabbages of di-	Melons,	Spinage,
vers sorts,	Mint,	Sage,
Carrots,	Nasturtiums,	Thyme,
Cauliflowers,	Onions,	Turnips.
Celery,		

The WORK and LABOUR in a KITCHEN GARDEN, in the Month of JUNE.

The gardener is now to preserve his plants from the scorching sun, as he has guarded them hitherto against the severities of sharp wind and frost.

All plants, especially such as have been lately moved, require to be refreshed with moderate watering: which is best done in the evenings in this and the next month.

Weeding is the next necessary branch of the gardener's business at this season. If the weeds are suffered to grow strong and seed, they presently destroy all his works and labour in cultivation.

Sow *large pease* about four or five inches apart, and about four feet from row to row, as directed in last month. These will afford a good crop in *September*:

Sow also the *white blossom*, and the *mazagan*, and all the small kind of beans. They will yield at *Michaëlmass*, if planted at a sufficient distance in a moist ground.

N. B. Steep both the *beans* and *pease* in pond water, about eight or ten hours before you sow them.

Sow *kidney* or *French-beans*, *radishes*, *endive*, and *lettuces* for cabbaging.

Transplant *cabbage-lettuces*, if fit to be moved: and *leeks* in light rich ground, at six inches distant from each other.

Cut no *asparagus* after the 8th day of *June*.

It is a proper time to gather *sage*, *mint*, *carduus*, *marjoram*, *lavender*, *rosemary*, *thyme*, and other sweet herbs for drying. Do this work at the full of the moon. When gathered, lay them in the shade, and turn them often over, as you do *hay*, till they be dry.

In planting *kidney-beans*, observe the directions already given in regard to the method. And further, that the running kinds must be planted in the first or second week of *June* and no later; and in planting any sort, it will now be proper, if the ground be very dry, to water the drills well before you sow the beans.

Draw up earth to the stems of *kidney-beans* planted last month, and plant sticks or poles to that sort that runs high; if not done before.

Brocoli must now be transplanted from the seed-bed to a piece of mellow ground, at the distance of four inches between plant and plant. Here water them in dry weather: and in about one month remove them again into a bed prepared for them.

Sow more *brocoli-seed* about the 10th of *June*: and that will produce a stock to carry you to *March* following with a supply of *brocoli*.

Brown-cole or *borecole* must now be brought out of the seed-bed, and planted four inches asunder each way in a nursery-bed. From whence, in one month after, they must be transplanted to the bed, where they are to remain and become stock.

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Prick out the *cauliflower* plants sown in *May*, in a nursery bed, about the third week of this month. This bed must be about three feet six inches broad in an open situation. And the plants must be set at the distance of three inches apart. Give them water to settle the earth about the roots. Shade them till they have struck root: and water them occasionally, for a month; when they are to be removed to the ground on which they are to be planted to produce their flower.

This is the season for planting a full crop of *cabbages* and *savoy*s for winter. On which occasion, the wider the distance your ground will afford, for to set your plants, the better crop you may expect.

Leeks being grown to a proper size by the 20th day of *June*, let them be transplanted, in rows, eight inches asunder, and about six inches from each other, upon an open spot of good ground.

Continue to thin, and to weed *onions*: for they thrive best at about five inches asunder.

Chardons are now to be removed into the bed, where they are to be blanched. See this article in *March*.

Celery must also be now transplanted into the ground on trenches where it is to remain and be blanched. See the directions for this work in *April*.

Lettuce sown in *May* will now be ready for transplanting into a spot of open ground. Prepare the land where you intend they shall stand. And, as this season is generally dry, plant them in shallow drills, each plant a foot asunder, and give them some water.

Also it is advisable to sow lettuce-seed to supply the table in *August* and *September*. The sorts recommended are the *cos*s, *Silesia*, and *brown Dutch*. The time, from the first to the tenth, and again about the twentieth of the month.

Cucumbers, that have been raised in frames and on a hot-bed, ought now to stand uncovered all day, except it happen to rain, or to be otherwise intemperate

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rate weather. Raise the frame so high that the vines may run from under it. But it will be prudent to shut all the lights down at nights.

Those raised under hand or bell-glasses being more hardy, must be suffered to run freely under them raised upon props; and it will be prudent to water them thrice a week.

As soon as the rough leaf appears in the *pickling-cucumbers* which were sown in *May* in the natural ground, they should be thinned, leaving only four of the strongest plants in each hole.

Earth up the flanks of those that remain in the hole, and water them carefully every other day.

You may also sow cucumbers any time before the 15th day of this month, in the natural ground, which will produce a plentiful crop in *August* and *September*.

Endive, that was first sown, will be ready to transplant for blanching towards the end of *June*. Plant these by line about one foot asunder each way, and let them be immediately watered.

Now sow *endive-seed* for a principal crop, in an open spot, not too thick, and rake it in equally. The best time to do this will be in the third or fourth week of *June*.

Treat the *carrots* and *parsnips*, as directed in last month: thin them, and clear them from weeds.

The same care ought to be taken of the *red beet*.

Such *melons* as remain under glasses must now be carefully shaded from a hot sun, i. e. from eleven o'clock till two, with a very thin mat. And at the same time give them fresh air by raising the lights at the back of the frame: and once a week a moderate quantity of water, especially where there is no depth of earth: and in such a manner as to keep clear of the head and the stem of the plants.

Permit those under bell or hand-glasses to run out, by raising those glasses with three props. Keep on the night coverings till the 15th. After that entirely lay aside the covering, except much wet makes it necessary

cessary to put it on again. For nothing hurts this fruit more than rain. For which reason our gardeners have invented a covering for *melons*, called *paper frames*, and should always be placed in the first week of this month, upon the ridges, as soon as the plants begin to spread from under the bell-glasses. But the glasses must be removed before these frames can be placed upon the bed. And I have known a good crop of *melons* obtained by the assistance of paper frames only, properly constructed, the paper securely pasted on, and well oiled with lintseed oil; and placed upon the ridges as soon as the plants were set, and covered in cold nights with mats.

Manage the *cresses* and *small sallading*, as directed in *May*, &c.

Hoe the *turnips* sown in *May*, leaving about eight inches distance. This to be done when the rough leaves are about one inch broad.

Sow a full crop of *turnips* in moist weather, if possible, and between the 10th and 25th of *June*, for autumn use.

About the third or fourth week in *June* plant out the seedlings of *thyme*, *savory*, *hyssop*, and *sweet marjoram* by a line, at the distance of six or eight inches asunder every way, upon ground prepared for them, and water them. In the same manner plant out *borage*, *burnet*, *clary*, *marigold*, and the like pot-herbs as were sown in the spring.

And, if necessary, slips of *sage*, and slips or cuttings of *thyme*, *savory*, *hyssop*, *lavender*, *lavender-cotton*, *southernwood*, *rue*, *rosemary*, and other aromatic herbs, will succeed and propagate their kind, if planted in a shady situation, and watered moderately.

As soon as the *mint* flowers, gather it, and all such-like plants, in a dry day towards the end of this month. And when cut up, either spread it immediately, or hang it up out of the sun.

In the same manner cut *pepper-mint* for distilling.

THE KITCHEN GARDEN during these three months, *April, May, and June*, has produced;

For Raw Sallads.

Chervil,	Endive,	Horse Radish,
Chives,	White Mustard,	Purslain,
Corn sallad,	Nasturtium	Red Sage,
Cresses,	flowers,	Scorzonera,
Cucumber,	Mint,	Celery,
Lettuces of va-	Young Onions,	Sorrel,
rious kinds,	Radish and	Parsley.

For Boiled Sallads.

Asparagus,	Brown Cole,	Parsnips,
Artichokes,	Savoys,	Potatoes,
Garden Beans,	Carrots,	Pease,
French Beans,	Leeks,	Spinage,
Beet,	Onions,	Turnips.
Cabbages,		





The STOCK of the KITCHEN GARDEN,

In the MONTH of JULY,

Alphabetically digested.

IN May our kitchen gardens may be so cultivated, as to yield the following *pot herbs*, *sallad-herbs*, *roots*, &c.

Artichokes,	Cucumbers,	Onions,
Baum,	Endive,	Parfnips,
Broccoli,	French Beans,	Parsley,
Cabbage,	Leeks,	Pease,
Carrots,	Lettuces,	Sage, &c.
Cauliflowers,	Melons,	Spinage,
Celery,	Mint,	Turnips.
Cresses, &c.	Nasturtiums,	

The WORK and LABOUR in the KITCHEN GARDEN,
in the Month of JULY.

Before all things the gardener must be watchful and diligent against the increase of weeds, and vermin of all sorts. He must therefore continue to hoe and weed; and destroy wasps, ants, and other insects, which are very numerous at this season. For this end pick off all crumpled leaves, wherever they are seen: because these are nests of destructive creatures.

Clear away the stems and stalks of all things that have done bearing; particularly the leaves and stems of cabbages and cauliflowers, the stalks and haulm of beans and pease.

Artichokes come again for use. Therefore in order to have the main head large and succulent, it will be proper to cut off all the suckers or small heads produced

duced from the sides of the stems. And for the better preservation of the roots, break down the stem to the ground, as soon as the principal head, called the *artichoke*, is cut off.

Sow *carrots* before the 15th, and they will be fit for the table in *October* and *November*.

Trench out *celery* for the winter crop in the manner already directed, with this addition, to trim the ends of their roots, and to trim two or three inches of the tops of their leaves before planting them in the trench.

Coleworts, which supply the table after the *savoy*s, &c. are gone, must be sown in the last week of *July*, in the same manner as directed for cabbages. The plant will appear in eight days, and be strong enough in *September* to be transplanted.

Cauliflowers for the *autumn* crop must be planted out for good. This must be done in a moist time, in rows two feet asunder. Water the new-set plants, and continue so to do, till they have taken root. By which means you may have cauliflowers to the end of *November*.

Brocoli must now be transplanted to where they are to make a full crop. Let the ground be rich and well dug. Plant them in rows, at the distance of twenty inches from one another. Water them as soon as planted, and moderately afterwards, till rooted, except the season proves rainy.

Now also, sow *brocoli-seed*, before the 10th of the month, on a rich shady spot, and in dry weather. But they must be moderately watered, and the plants will be fit to plant out for good in the first week of *September*, and produce their heads in *May*.

Cabbages and *savoy*s, for winter stock, must now for the last time be planted out at the distance of eighteen or twenty inches every way.

Sow *endive*, in the first, third, and fourth week of this month, in an open and rich spot of ground. Let it be sown thin, and raked in with a light hand. And

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if watered in dry weather, the plants will soon appear. This will strengthen the winter crop.

You must now also plant out the *endive* intended for the *autumn* season, on good ground well wrought: and water the plants as soon as set in the earth. Which watering must be repeated every second day till the *endive* be rooted.

Sow *onions* in the last week of this month, on rich ground, well sheltered, and tolerably thick, to stand the winter. They will rise soon, and get strength by *Michaelmas*, and be very acceptable in *March* and *April* for small fallading.

If you find the forward crops of *onions* to wither in their stems or leaves, take up the roots. But this must be done in dry weather. Then pull off their leaves, and let about four inches remain of each stalk. These must be spread upon a dry spot of ground, on a mat, to harden, turning them every other day for a fortnight. Then depose them in a dry, but airy room, cleansed from all earth and loose skins, and spread upon the floor, with the windows open for about a week, if dry weather. After that keep the room close; and not only turn the *onions* over frequently, but pick out such as decay.

In like manner pull up *garlick*, *shallots*, and *rocombole*, when the stalks turn yellow.

Sow *cresses*, *radish*, *mustard*, and all sorts of *small fallading*, as directed before.

Some will attempt to sow a fresh crop of *French beans*: but they seldom answer the expectation. However, if it be thought convenient, let them be sowed in the first week of *July*, in the manner directed last month.

Sow the prickly-seeded *winter spinage* within four days of the end of this month, on a fresh dry piece of ground; not too thick: and tread it in before it be raked.

Transplant the *lettuces* sown last month, in the manner that has been directed for a plantation of *lettuces*:

tuces: they now require moderate watering till they have taken root.

Also sow *Silesia*, *cofs*, and *brown Dutch* lettuce in the first, second, or last week of this month. By which you will have lettuce fit for the table in *September*, *October*, and *November*.

Melons begin now to ripen; and must be committed chiefly to the care of nature: for water will rob them of their flavour and rich taste. And therefore be exceeding sparing of the watering-pot, and defend them from rain. Which is best to be done by the *paper frames*, as directed last month: and used occasionally.

Make a bed of mushrooms, as directed in *February*, and cover it with earth.

Cucumber-plants under hand or bell-glasses are now, in full bearing; and must be watered in a dry time three times a week, and to be kept clear from weeds. And those designed for *picklers* must have their vines properly led, and disposed at regular distances, with earth pressed down gently, between the plants, and draw the earth up round each hole, in form of a basin. By which means they will receive the water, given in dry weather, and the roots will spread and grow stronger.

Transplant *leeks*, as directed in last month.

Tie up *chardons* for blanching.

Sage and other *aromatic* herbs may yet be propagated according to former directions.

This is the proper season to gather the *flowers* of *lavender*, *camomile*, and *marigolds* for use: let this be done about the end of the month, in a dry day: spread them in a shady place, and when perfectly dry, hang them up in paper bags.

Continue to gather *mint*, *baum*, &c. for family use, and prepare them for keeping, as directed before.

Sow *turnips* again for *autumn* and *winter*, but not too thick. And hoe the plants that were sown in *June*.

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Water plentifully all herbs, that are seeding: and those plants which stand in pots or cases.

Gather all sorts of seeds as they ripen. Do this in perfectly dry weather, and spread them or set them up to harden in a very dry place: and in three weeks time, being often turned, they will be ready to be beaten out, and cleansed from the husks.

This is also the proper time to gather herbs for distillation.





The STOCK of the KITCHEN GARDEN,

In the MONTH of AUGUST,

Alphabetically digested.

Artichokes,	Endive,	Radishes,
Brocoli,	Garlick,	Rocombole,
Cabbages,	Leeks,	Savoy,
Chardons,	Lettuces,	Shallots,
Carrots,	Melons,	Small Sallad,
Cauliflowers,	Mint,	Spinage,
Celery,	Onions,	Sweet herbs.
Cucumbers,	Parsley,	

The WORK and LABOUR in the KITCHEN GARDEN, In the MONTH of AUGUST.

The season to sow the *sugar-loaf*, and early *Bartersea cabbages* for a spring crop, is exactly between the sixth and twelfth day of *August*. Sow them on an open piece of rich ground, moderately thick, and raked in with a light and even hand. But in the beginning of the month you may sow any of the late kinds of cabbage.

Caul flower-seed to produce an early crop next summer, must be sown between the 18th and 24th of this month, which will be ready to plant under frames in the last week in *October*, to remain there till the latter end of *February*, or beginning of *March*.

Weed and keep clean the *asparagus* bed, and the plants sown in the spring. Do this work with the hand only.

Sow *carrots* for spring use. Do this in the third or fourth week of this month, and don't sow this seed too thick

You

You may sow the *salmon* and *scarlet radishes*, in open ground, about the beginning of *August* with success, and they will be fit to draw about the middle of *September*; and if sown again towards the 24th day, they will be fit for use at *Michaelmas*, and in *October*.

Earth up the *celery* transplanted on former occasions: and now transplant the crop sown, and in the manner as directed in last month.

Continue to examine the *artichokes*, and manage them as directed in last month.

They who desire early lettuce, to supply the table in *April*, should now sow the *Coss*, *Silesia*, *brown Dutch*, and *common cabbage lettuces*, between the 18th and 24th of this month; to be planted out into warm borders, or in shallow frames; to be well covered with dry litter over the glasses and frames in hard frosts.

Tie up the *endive*, that is full grown, in a dry day, and in the manner already directed. And transplant those seedlings that remain in the seed-bed, trimming the extreme end of their roots, and top their leaves a little. Plant them at twelve inches from each other: and water them till they have taken root.

Continue to examine, clean, and take up the *onions*, that are come to their full growth. The same to be observed in *rocomboles*, *shallots*, and *garlick*:

Continue to gather herbs to distil, and seeds: and flowers and herbs to dry.

Cut down the decayed stems of *hyssop*, *savory*, *lavender*, and other aromatick plants; which will strengthen their roots, and cause them to shoot out afresh, and look neat.

Manage the *melons* as directed last month.

This being the season for *pickling-cucumbers*; they must be well watered in dry weather, three or four times a week; and be gathered at proper sizes three times a week.

Hoe and thin turnips sown last month, in the manner already described: and it will not be too late to sow for a late crop, before the 10th day of the month.

Some

Some people advise the propagating of sweet herbs from slips or cuttings in this month. But this practice is not always crowned with success, whereas such plantations seldom fail in *July*. To which you may have recourse.

The lovers of *small sallading* may still be supplied by sowing *cresses*, *mustard*, *radishes*, &c. as directed before, in a shady border.

Transplant *savoy*s, twenty inches distant, for the *Christmas* table.

Sow some *spring onions* upon a clean dry spot of ground, pretty thick, in the beginning of the month. But it will be a more certain way to sow *Welch onions*; which will stand the hardest frosts.

Plant out the second crop of *brocoli* in ground well prepared with rotten dung, dug into it. And draw the earth up to the stems of those plants set last month.

Sow *winter spinage* (the prickly seeded kind) for a full crop, if not done last month. If upon rich ground, sow it in the second week; if otherwise, you must sow it in the first week, of *August*. Tread it in, and rake it neatly. And when the leaves grow an inch broad, or more, clean the *spinage* from weeds with a hoe or hand, and give each plant room to spread.

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The STOCK of the KITCHEN GARDEN,

In the MONTH of SEPTEMBER,

Alphabetically digested.

Brocoli,	Celery,	Onions,
Cabbages,	Coleworts,	Parsley,
Carrots,	Endive,	Parfnips,
Chardons,	Lettuces,	Spinage,
Cauliflowers,	Leeks,	Turnips.

The WORK and LABOUR of the KITCHEN GARDEN,
in the Month of SEPTEMBER.

About the 15th of *September* transplant *cabbages* sown the second week in *August*, into the nursery-bed of good ground in a sheltered situation. Thin out the plants regularly: take the strongest, and plant them about five inches asunder every way. Close the earth well about the stems; and give them discretionally water, till rooted, and they will become an early crop next summer.

About the 20th, remove the *cauliflower*-plants from the seed-bed, sown last month, to a bed well sheltered from weather, and open to the sun: prepared as directed before. Draw out the strongest plants first, and plant them in the nursery, about three inches asunder, and not too deep. This nursery will require to be watered moderately, to settle the earth. Cover the whole with a frame and lights for a few days, or till the plants have rooted; during which time they must also be shaded from the sun. When rooted, take away the glasses for a month, except there comes a heavy rain; when the lights will preserve the plants from the rot.

Co'cworts,

Coleworts, sown in *July*, must, before the 15th of this month, be planted in rows like cabbages in a place skreened from cutting winds.

Before the 15th of this month, plant the last crop of *Brocoli* in a rich soil and warm situation; and in the manner before directed.

Hoe that which was planted out before, and earth up the stems.

Continue to earth up *celery*, and to plant a late crop for spring use.

Blanch *endive* as directed in the month of *January*; and plant out some in the beginning of the month for winter use: and more about the middle and latter end, under a south wall, to stand there till after *Christmas*, before it be blanched; and, if it escape the frost, this stock will carry us up to *March*.

Hoe, or otherwise contrive to clean and thin *spinage*; leaving the plants four inches distant; and, if needful, another crop may be sown in the beginning of the month, upon a rich warm soil, with success.

Onions sown in *August*, require now to be weeded; which must, at this season, be done with the hand, because they do not want thinning.

Hoe *turnips* as directed last month.

About the end of this month, plant out *lettuces* sown in *August*. Prepare a warm border, dug sloping for their reception. Select the strongest plants. Pick off decayed leaves, and trim the roots a little: plant them in rows, four inches distant.

About the middle of *September*, sow more seed of lettuce last mentioned, in rich earth, and a warm situation, to be pricked out in frames in *October*.

Now you are called upon to prepare beds for *mushrooms*. For this purpose, provide fresh and good warm dung about the beginning of *September*: lay this dung in a heap till the heat be over; and while that is doing, for a fortnight or three weeks, provide as much spawn as will be required for the bed intended. You are to look for it in decayed hot-beds, dunghills of
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eight or ten months standing, or in pasture grounds, where mushrooms grow spontaneously: and you will know it thus; it is white, lies in lumps of rotten dung, like small white thread, and has exactly the smell of a mushroom. You must take the lump up as entire as possible; and deposit your whole stock in a dry place under dry litter, till you are ready for it. But if the spawn happen to be wet, lay it in a shady place to dry.

Make the *mushroom-bed* of a certain dimension, and on the surface, according to the quantity you propose to raise. Raise it between stakes four feet high, broad at bottom, and rising like the roof of a house on the sides. In ten or twelve days the heat will become so moderate as to put in the spawn: then plant it in rows lengthways of the bed, beginning within the surface of the bed, about seven inches asunder; and make each row eight inches from one another; which finished, beat the surface of the bed quite smooth with a spade, gently, then lay on an inch and half of rich dry earth, and made quite smooth also with the back of the spade; and over all, lay a covering of clean dry wheat straw, a foot thick, which must always be removed after heavy rains, and replaced with more.

Such a bed, if rightly prepared, will produce mushrooms in six weeks, and continue so doing for several months: but should there appear no crop for four months, do not despair, it then often produces greater plenty, and better *mushrooms*.

THE KITCHEN GARDEN during *July, August,*
and *September,* has produced,

For RAW SALLADS.

Corn-sallad,
Celery,
Endive,
Lettuce,
Mustard,

Mint,
Melons,
Cucumbers,
Parsley,
Onions,

Nasturtiums,
Purslane,
Horse Radish,
Small Sallading,
Sorrel.

BOILED SALLADS.

Brocoli,
Cabbages,
Carrots,
Cauliflowers,
Coleworts,

Beans,
Pease,
French Beans,
Artichokes,
Savoys,

Beet,
Parfnips,
Spinage,
Turnips,
Parsley.

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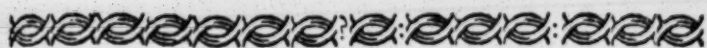
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The STOCK of the KITCHEN GARDEN,

In the MONTH of OCTOBER,

Alphabetically digested.

B Eans,	Cardoons,	Onions,
Beet,	Celery,	Parsnips,
Broccoli,	Endive,	Parsley,
Cabbages,	Kidney, or	Potatoes,
Carrots,	French Beans,	Spinage,
Cauliflowers,	Lettuces,	Sage,
Coleworts,	Leeks,	Small-sallad,
Corn-sallad,	Mint,	Turnips.

The WORK and LABOUR in a KITCHEN GARDEN,
in the Month of OCTOBER.

If there remain any *cabbage-plants* in the seed-beds, let them, as soon as possible, in this month, be removed into a bed of rich earth, in a warm situation, and well dug and worked in with rotten dung; and set them about five inches asunder.

About the 20th day, plant out a few early cabbage plants in the ground, on which they are to continue till next summer. Dig the ground one spade deep, and bury dung properly at the bottom of the trench for this purpose.

Cauliflower-plants, in fine weather, must be kept uncovered night and day; and about the latter end of the month, transplant some of them to the ground, on which they are to remain for a crop, and be covered with bell-glasses in hard weather.

Begin, in this month, to plant *beans*. Plant the *mazagan*, as accounted the best for the season. Sow them in a warm border, and in rows, across the border,

der, three or four inches distant, and the distance of thirty inches between the rows; or plant one row close under a south wall.

Or, you may plant early beans thus: Dig a piece of rich ground in a warm corner: rake it well; and with a line strike out drills at a proper distance, about one inch and half deep. In which scatter the beans pretty close, and draw the earth equally over them. When those have shot up two inches above ground, you may transplant them, as above, into borders.

At the same time, the gardener begins to sow *pease* for an early crop; and generally prefers the earliest *hot-spur* for this purpose.

A warm border is generally chosen for this work: and the *pease* are sown in drills about one inch and half deep, and thirty inches distant from one another, either across the border, or lengthways.

Brocoli will now be greatly defended from the frosts, and nourished, if care be taken, in this month, to break the ground between and about the plants with a hoe, and to draw the earth about the stems.

About the 15th of *October*, transplant the lettuces sown in *September* under glasses, into the places where they are to remain all winter, and which lies well to the sun. Plant them in beds made fit for a cucumber frame; or where hoops may be placed across, in order to cover them, when there shall be occasion.

Those *lettuce-plants*, which were sown in *August* and *September*, to stand abroad all winter, should also now be transplanted into warm borders to stand the winter without covering; especially if ranged in a row close to a south wall.

Spinage must still be followed, in order to keep it clean of weeds, and to thin it: but this work is best done now by hand.

Endive must be tied up every week for blanching. On which occasion, choose such plants as are fully grown; and, when tied up regularly, draw the earth up round almost to the top of each plant: a method that

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that accelerates the blanching, and makes the plants exceeding white and tender to eat. See this article in the month of *January*.

Prepare to raise young *mint*. About the end of the month make a slight hot-bed, two feet thick of dung, of what dimensions you please. Having fixed the frame, cover the dung with five inches of earth; upon which lay roots of mint close together, and having covered the roots with earth, about one inch thick, and watered them, put on the glass; but admit air to come in behind every day.

Continue to earth up *celery*, as it grows in height.

Cardoons require the like care to be earthed up.

Some attempts have been made with success, by sowing *radish*-seed about the end of this month, to have *radishes* very early in the spring.

Small sallad, viz. *mustard*, *cresses*, *radish*, *rate*, *lettuce*, if proposed to be produced in winter, must be sown separately, upon a bed of very rich earth, in frames, and the warmest situation that can be procured. Shelter the crop with glasses by night, and in all rough weather.

Sow *carrot seed* in the last week of this month, for an early crop in the spring.

Cut down all stalks or decayed flower stems of *aromatic plants* close to the ground; and at the same time carry all the litter and weeds pulled up, quite off the premises, and then spread a little rotten dung over the beds.

You must dress the *asparagus-beds* much in the same manner. For having cut down the stalks close, and carried them off, and cleared away the weeds hoed up, you may dig up the alleys a spade deep, and spread the earth over the beds; or, you may first manure the beds with very rotten dung taken from cucumber or melon beds, and then you may plant coleworts or cabbages in the alleys, to preserve them from frost.

Nothing more remains for the kitchen gardener to do in this month, than to dung and trench that part of his ground that is vacant, and intended to lie fallow till he wants it in the spring: and it will be an addition to its fertility to lay it up in ridges; for, by that position, it will keep dry, and grow mellow and rich by being more exposed to the sun, air, and frost.



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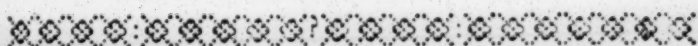
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The STOCK of the KITCHEN GARDEN,

In the MONTH of NOVEMBER,

Alphabetically digested.

A rtichokes,	Cardoons,	Potatoes,
Beet,	Carrots,	Spinage,
Beans, sown,	Corn-fallad,	Pease, sown,
Brocoli,	Endive,	Mushrooms,
Cabbages,	Leeks,	sown,
Savoys,	Lettuces,	Small-fallading,
Cauliflowers,	Mustard,	Radishes,
Coleworts,	Onions,	Turnips,
Brown Cole,	Parsley,	Mint,
Cresses,	Parsnips,	Sage.

The WORK and LABOUR in the KITCHEN GARDEN,
In the Month of NOVEMBER.

Small-fallading may be sown every ten days, and will come to perfection under lights in frames, and sown in drills of half an inch depth; and giving them air at seasonable times,

About the 8th of this month, sow *pease*, on a warm border, under a wall, to support them sown last month.

Also repeat the plantation of the *beans* in the same manner.

Continue to tie up *endive*, and manage this plant in the blanching, as directed in *January*.

In mild and dry weather take off the lights from the frames, where the *lettuces* are growing: and observe the same rule with those under bell and hand-glasses.

In earthing *celery* this month, lay it within six inches of the tops of the plants; but with that caution, as not to throw any dirt into their hearts; and do this work on a dry day.

Earth *cardoons* in the same cautious manner.

About the middle of this month begin to cut off the leaves of *artichokes* close down to the ground: which being done, you must earth up these plants also, by digging close about and between all the plants, and working up the earth as you dig it from each side of the row of plants, till you form the spot on which they stand into a ridge, sloping on each side, which will keep out the frost better than the laying of long dung over the plants: but there may be such severe weather as shall require even a covering of straw, or dry long litter over the ridges.

Take up *carrots* and *parsnips*, and other kitchen roots, early in this month for winter stores. This must be done in a dry mild day. Cut the tops off close; clean them from dirt; and deposite them with the crowns of the roots outwards, in a bed of dry sand, about three inches thick upon a floor, with two inches of sand over them; upon which lay a covering of dry straw. You may sow *carrot*-seed for a spring crop in the first week of this month: but there are no great hopes of its succeeding, except it proves a mild winter.

It is a good method at this season to gather only the outside leaves of *spinage*, for the inner ones will grow the larger against another gathering, provided the bed be kept very clean from weeds.

Weed the *onion-beds* very carefully.

Prepare hot-beds to raise *asparagus*: for which see the directions we have given in the introduction to this treatise, under the title *Hot-beds*.

Give as much air as possible to *cauliflower*-plants in mild dry days. Cover them close every night; and in wet turbulent weather. Pick off dead leaves, and pull up weeds. Draw a little earth about the stems.

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And you may venture to plant more cauliflowers in the beginning of this month, under hand or bell-glasses.

Potatoes, if any remain, must be taken up, cleaned, and laid up in a dry room ; and in frosty weather, cover them with straw a foot thick. Examine them frequently, and take out the rotten ones ; which otherwise will corrupt the whole stock.





The STOCK of the KITCHEN GARDEN,

In the MONTH of DECEMBER.

Alphabetically digested.

A rtichokes,	Brown Cole,	Onions,
Beans,	Celery,	Parsley,
Broccoli,	Endive,	Parsnips,
Cabbages	Lettuces,	Pease,
Savoys,	Leeks,	Radishes,
Cauliflowers,	Mint,	Small-salading,
Cardoons,	Horfe Radish,	Spinage.
Coleworts,		

The WORK and LABOUR in the KITCHEN GARDEN, in the Month of DECEMBER.

Continue to blanch *endive* in the manner as directed before.

Manage *celery* as directed last month, and in *January*.

About the middle of this month, sow another crop of *pease*, particularly *hot-spur*, pretty thick in drills, about an inch and half deep, in a warm situation.

And such *pease* as appear above ground, should be earthed up at the stems, to preserve them from the inclemency of the season.

About the 15th day of *December*, sow another crop of *mazogan* beans in rows, in the manner directed in the month of *October*: and towards the end of the month sow *Sandwich Beans*, to succeed the others.

If the former crop be above ground, earth up their stems continually as they advance in height.

The *lettuce-plants* in frames, and under covering glasses, must be managed as directed last month.

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Sow some *lettuce-seed* under a south wall twice in this month, which, perhaps, may come to perfection in the spring.

Sow *radish-seed* under a south wall for spring use ; and, if they come up, cover them with long litter to preserve them from frost. You may also raise *radishes* in frames, if you sow the short-topped kind after the 15th day of this month, a quarter of an inch deep, and giving them plenty of air in mild weather.

Cauliflower-plants must be managed according to the directions in former months.

Small-sallading is now raised entirely in frames of dry light earth ; and the seed requires only to be just covered, so as to hide them with earth. If the season becomes very severe, then sow the *mustard, cresses, radishes, rape, and lettuce*, upon a slight hot-bed.

Earth up *cardoons* as you do *celery*.

If the artichokes were not earthed last month, do it as soon as possible in *December*, in the manner there directed.

Cover the *mushroom-beds* with a coat of straw one foot thick ; and if at any time the covering next the bed be found wet, remove the wet, and put dry in its place.

Prepare beds for *asparagus*. See the *Introduction*.

In open weather the gardener must employ himself further in trenching and digging ; laying the ground up in ridges, till the time it is to be sown or planted ; and in hard frosts he must bring in dung to manure where it is wanted.

THE KITCHEN GARDEN during the months of *October, November, and December*, has produced,

For Raw Sallads.

Cresses,
Corn-sallad,
Horse-Radish,
Mustard,
Parsley,

Celery,
Red Sage,
Chervil,
Endive,
Lettuce,

Onions,
Radishes,
Spinage,
Turnips.

For Boiled Sallads.

Beets,
Savoyes,
Onions,
Potatoes,

Spinage,
Cabbages,
Carrots,

Parfnips,
Parsley,
Turnips.

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THE PHYSICAL GARDEN.

CONTAINING

A PRACTICAL CULTIVATION of such
HERBS, as at some times are necessary
in all Families.

FOR

DISTILLING and PHYSICAL USES.

Such as,

A Ngelica,	Lavender Cot-	Red and Damask
Anniseed,	ton.	Roses,
Baum,	White Lillies,	Red Sage,
Camomile,	Lavender Spike,	Sage of Virtue,
Carduus,	Liquorish,	Wormwood
Clary,	Mint,	Sage,
Comfrey,	Marjoram,	Savory,
Dragons,	Marshmallows,	Solomon Seal,
Dill,	Marigolds,	Saffron,
Dwarf Elder,	Pennyroyal,	Thyme,
Elicampane,	Parsley,	Tansie,
Fennel,	Peonie,	Tobacco,
Fetherfew,	White Poppy,	Scurvy grafs,
Hyssop,	Rosemary,	Violets,
Lavender,	Rue,	Wormwood.

Angelica.

Angelica. This is raised from seed sown either soon after it is ripe, and gathered in *September*, or in the spring. But after the first year's growth, this plant is generally preserved by cutting down the stem or stalk in *May*; by which means a root of *angelica* may be preserved many years. Transplant this root when it has shot six inches above the surface of the earth, at the distance of three or four feet, and in moist land: and, if suffered to run to seed, *angelica* will die soon after it grows ripe.

The tender stalks of this plant are extremely pleasant to the palate when candied. And the root is a very great opener of the liver and the spleen, and attenuates gross and tough phlegm; and the leaves steeped in wine, as well as the root, is held to be a singular medicine against surfeits, bad stomachs, and bitings of mad dogs, and of other venomous creatures. And the learned avow, that the root, if chewed in the mouth, is an antidote against poison, the plague, and other infections taken thro' the air, driving them out by urine and sweat.

This plant flowereth in *July*, and seeds in *September*.

Aniseed, if sown in a rich warm soil in *May*, will grow with us. The seed will ripen in *August*, and are of a very delightful smell; and being used fresh gathered, are much preferable to the seed brought from the eastern countries, and kept frequently till perished.

This seed is very good for those who are troubled with wind, belchings, upbraidings of the stomach, gripes in children, &c. provokes urine gently, and breeds plenty of milk in nurses.

Camomile, meaning the double-flowered white-leaved sort, and which is best known to us, delights in good mellow holding land, and is propagated by parting the roots any time in the month of *March*. It is common to make beds of this plant; and it thrives best when new planted, one foot apart, every year.

It

It is very good against the cholic and stone, given either in a decoction of the flowers, or by way of glister: and a decoction of these flowers made in wine warms the stomach, and cleans it from wind and four belchings. The *herb* boiled in posset-drink, easeth pains in the chest, and expels phlegm: and used in baths, it will cause sweat, open the pores, ease gripings and gnawings of the belly, soften hard swellings, and waste raw and undigested humours.

The *Aegyptians* consecrated this plant for its sovereign virtue in curing agues.

The *oil of camomile* is used to give relief in all aches, pains, bruises, cold, swellings, and shrinking of the sinews.

Carduus, or *Carduus Benedictus*, i. e. *The Holy Thistle*, is sown in *September*, soon after its seed is ripe. It delights in good ground: and when four inches high, must be planted in beds at one foot distant each plant from another

The time for gathering this plant for *physical* uses, is when in full blossom in *July* and *August*.

This is a gentle vomit when boiled in water; and used with great safety and advantage to work off a vomit, if drank instead of water-gruel.

This plant boiled in wine, and drank hot, healeth the gripes, kills and expels worms, causes sweat, provokes urine, expels gravel, cleanseth the stomach, and is often given with success in a quartan ague.

Comfrey is propagated by seed sown in *March*, and delights in moist and shady ground.

This herb taken in a decoction, dissolves clotted or congealed blood within the body; and heals all manner of wounds, either inward or outward. It also opens the stopping of the liver and gall: is good against the jaundice, and cures ulcers in the mouth and gums.

Dragons are propagated by their knobbed roots, which in three years afford off-sets to be taken off, and planted in autumn.

The

The virtues of this herb are discovered in its *root*, which cleanses the entrails, and attenuates thick and tough humours: in its *leaves*, which applied *green*, are good for ulcers and green wounds: and being distilled, the *water of dragons* drank warm, with *sweale* or *mithridate*, is good against pestilential fevers and poison.

Dwarf-elder, or *dare-wort*, is increased by parting the roots in the spring: and it delights in mellow ground.

Its medicinal virtues are, that the *root* boiled in wine purgeth watery humours; and therefore good against the dropsy: and one dram of the seed is most excellent for this purpose also. The *leaves* waste and consume hard swellings, when applied by way of poultice or fomentation.

Elicampane, alias *scabwort*, or *horse-beal*, is propagated by seeds soon after ripe, in light, moist earth; the second year they will appear; then, at *Michaelmas*, plant them out in rows a foot asunder, and nine inches distant plant from plant; make the holes deep for the roots to stand straight, and let the crown be just under the earth; the next spring, about *April*, when they begin to shoot, hoe between them three or four times; the next *Michaelmas* take them up. They are also increased by off-sets at *Michaelmas*. In a poor soil they should remain two years after planting.

The medical virtues of the root are to help shortness of breath, and an old standing cough; and taken in powder, with honey and sugar, made into an electuary, the root cleanses the breast, ripens phlegm, and causes an easy expectoration. The root preserved is an excellent stomachic, and helps digestion.

Fetherfew is an herb that cleanseth nature, and purges, opens, and performs fully all that bitter herbs can do.

Hyssop, with blue flower, is raised from seed sown in *March* or *April*; or may be propagated from slips
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any time in the spring; and delights in a fresh mel-low soil.

It is used either by way of decoction, or in syrup, or distilled. A *decoction* of *hyssop* and *figs* is a most excellent purge against tumours and imposthumes in the mouth and throat. And a decoction of this herb made with *figs*, *water*, *honey* and *rue*, helps the inflammation of the lungs: relieves an old cough, shortness of breath, and all obstructions in the stomach.

The *syrup* or *juice* of *hyssop*, taken with syrup of vinegar, purgeth by stool tough and clammy phlegm; and eaten with figs, expels worms.

Hyssop-water distilled answereth all the said purposes, in a lesser degree.

Lavender-spike, with blue flowers, and *Lavender-cotton*, are so well known, that they need no description: all the kinds of *lavender* are increased by slips of the last year's growth planted in *March*, *April*, or *May*, and delight in a light fresh soil.

The blue flowers of *lavender*, cleared from the husks, reduced to powder with cinnamon, nutmegs, and cloves, drank in lavender-water distilled; and the *conserve*, made of flower and sugar; taking the quantity of a bean, in a morning fasting, will help palpitations and passions of the heart, giddiness in the head, and parts subject to the palsy.

The *seed* or *leaves* of *lavender-cotton*, kills worms in the human body; and drank in wine, is an excellent antidote against the poison of serpents and venomous beasts.

Liquorice. There are three sorts; and they should have a rich, light, sandy soil, three feet deep, well dug and dunged a year before used; it should be laid very light. Take plants from the sides or heads of old roots, with a good bud to each, about ten inches long and quite sound; plant them the beginning of *March*, in rows two feet distant, and the plants one foot asunder; put the roots down straight, and let the bud be one inch under ground. In *October* spread

spread a little very rotten dung over the surface ; the beginning of next *March* slightly dig the ground, and bury the dung therein. Let them remain three years from the time of planting ; and then, after the stems are decayed, take up the roots.

But in order to have a full crop every year, you must plant as much every spring, as has been taken up the autumn and winter before ; and after the liquorice is taken up, you must preserve it moist in a sand-bed, placing the roots in rows, about half an inch asunder.

The common sort, here intended, is good against hoarseness, inflammation of the lungs, pleurisy, spitting of blood and matter, consumption, all infirmities of the chest ; helps shortness of breath and decayed lungs ; takes away inflammations, mitigates sharp salt humours, concocts raw humours, and causes easy spitting ; when taken in an electuary, mixed with syrup of horehound or violets ; and the decoction being drank, very much helps ulcerated kidneys and bladder ; cures the strangury, and generally all infirmities that proceed from sharp, salt, and mordicant humours.

Marjoram. Under this name we rank both the *summer* and *winter marjoram*, because they are endowed with the same medical qualities.

The *summer sweet marjoram* is raised from seed sown in *March*, upon a very gentle hot-bed, to be transplanted out either in small garden-pots, or in a bed, about four inches apart : and this kind being of so delicate a nature, as not to bear the severity of our winter, you must watch the time of its full growth, and cut it down and dry it for use.

The *winter* or *pot marjoram*, is propagated from slips in *March*, *April*, or *May*, at five or six inches apart ; and delights in moist fresh land.

Sweet marjoram, when dried, and snuffed up the nostrils, becomes a good remedy against cold diseases of the brain and head.

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Dried *marjoram leaves*, or *flowers*, mixed with tobacco, and smoaked, warm a cold stomach: and being steeped and taken in ale or wine, provoke urine.

The *leaves boiled*; their decoction drank, will ease pains of the belly, provokes urine, and prevent a dropisy

The oil of *marjoram* is very good against the shrinking of *sinews*, *cramps*, *convulsions*, and all kinds of aches proceeding from cold causes.

Marshmallows grows wild in most parts about London, and in great perfection, often three feet high. For a further increase sow the seed of this herb in *March* or *September*. The plant is so tender, that the leaves drop off in frosty weather, and the stem perishes: but the root remains good, and in *March* sends forth a new quantity of stalks, leaves, and flowers, which blow in *July* and *August*. The whole plant ought to be gathered for use in *September*. If you propose to cultivate this plant, they must be planted one foot apart in a moist fresh soil.

The *leaves* of *marshmallows*, mixed in fermentations and poultices, or drank in a decoction, digest, slacken, and mitigate pain; and are very good against the stone, pain of the sides, and of the bladder.

A decoction of the *root*, tho' not of a binding quality, is a good remedy against the bloody flux.

The *roots* boiled in wine, and drank, is a remedy against the stone and gravel, bloody flux, sciatica, cramps and convulsions: and the seed beaten to powder, and drank in old port wine, stops the bloody flux, and all other like issues of blood.

Marigolds. The several kinds of *marigolds* are sown early in the spring, or more frequently are suffered to sow themselves. They begin blossoming in *April*, and continue till winter-frosts nip them off: and as they are continually blowing and decaying, so they are continually succeeded by crooked seeds, which may blossom as soon as ripe, or any time in spring.

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It is observable, that those seeds which grow on the outermost part of the pods or heads, generally produce single flowers ; and those of the middle part, double. Therefore, if you would preserve the best, make use of those seeds only which grow in the middle.

The learned write, that the flowers of *the greatest double marigold* strengthen and comfort the heart; and withstand poison when boiled and eaten in soups, broths, &c.

Garden poppy. The seed of the *garden poppy* is ripe about the beginning of *August* ; and, if then sown, it will come up before the winter sets in with severity ; will resist the frost, and come much earlier to perfection than those sown in *February* or *March*, as is usual.

The *white poppy*, generally cultivated for physical uses, delights in sandy fresh loam : when the plants grow up about the size of half a crown, or somewhat sooner, thin them with a hoe, leaving a distance of ten or twelve inches between each plant. Hoe them again, when about five inches high, with great care ; for the least touch of the hoe, to cut or bruise a plant, destroys it. This last hoeing is intended to remove the earth so deep, that the horizontal roots of these plants may easily strike therein, and receive their proper nourishment.

Opium is the hard juice of poppy heads.

Meconium is the juice of the heads and leaves.

Either of these taken outwardly or inwardly will cause sleep : and if taken inwardly in too large a quantity, they will cause DEATH.

Yet the heads of the white poppies, and the shell thereof alone, may be used with great safety. The head of a *white poppy* boiled in milk will cause sleep, repress rheums, and come very near to the force of *opium*, but operates more gently. And a piece of a white poppy shell, as large as half a crown-piece, being boiled in milk or wine, is a good quantity to be used, where sleep is required. If this does not answer the purpose, you may increase as much more, but

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Rosemary is generally propagated by slips of the last year's shoot, twisted at the lower end, and planted in *March, April, or May* in any kind of soil.

This plant is a grand *cephalic*, gives vast relief to the diseased head and brain, disordered from cold and moist causes. It is also given against all fluxes ; quickens the senses and memory, and strengthens the muscular parts.

Rue, by some called *herb-grace*, delights in a light, fresh, shady soil, wherein there is no dung : and is increased by slips of the last year's shoot, twisted at the lower end, and planted in *March, April, or May*.

Rue has both its virtues and its bad qualities. It is in great reputation for breaking wind and driving it out of the body ; and for digesting all gross and tough humours, and for provoking urine, if eaten new or with bread and butter. Being boiled in vinegar, and drank, it cures the gripes, stitches in the side and chest, shortness of breath occasioned with cold, and pains in the joints. The young shoots boiled, or scalded, and kept in a pickle, and eaten, are a very great help to the sight. And the leaves of rue eaten and drank with wine are an antidote against poison.

Its bad qualities are, it dries up the natural seed of generation, and the milk of those that give suck.

Red and damask roses are increased by layers, or suckers, and delight in a fresh sandy loam. The best time to transplant them is in *October and November* : and set them in a row three feet apart ; or scatter them over your kitchen garden, or strawberry beds.

You must observe to gather the *red roses* for use, before they are near blown open : but the *damask rose* must be full blown.

The *water* of these roses strengthens the heart, and revives the spirits.

The *juice* of the damask and musk rose makes the belly soluble.

The

The *syrup* of these roses moistens and cools, allays the extreme heat of hot burning fevers, and quenches thirst.

The *oil* of these roses mitigates heat, and prevents the increase of inflammations, and assuages those that are risen.

The *conserve* of these roses, taken fasting in the morning, and going to bed, comforts the heart and a weak stomach, and strengthens the liver, kidneys, and other weak inward parts.

Saffron has a bulbous root, and is planted about *Midsummer* in ground dug and prepared on purpose for such a plantation, divided into beds, about three feet wide, with alleys between of fifteen inches. These roots must be planted three or four inches asunder, in drills about three inches deep.

These will come up the second of *September*, after planting. At which time you will gather not above a fourth part of the quantity produced in the third and fourth year, when *saffron* is in its perfection. After four years you must take up the roots and re-plant them, as before. But to have always a full crop, you should plant an equal quantity every year, to come in and succeed the other, that is taken up.

This *saffron*, when gathered, is dried between two sheets of writing paper, over a very gentle heat, or in a small kiln and a charcoal fire, as used at *Littlebury* near *Walden* in *Essex*, where the most and the best *saffron* grows.

Saffron is an approved remedy in a consumption of the lungs; in shortness of breath, in surfeits and yellow jaundice, take the quantity of ten or fifteen grains in a glass of generous wine. It is good for the head; revives the spirits, expels drowsiness, strengthens the heart, concocts crude humours in the chest, opens the lungs, and removes obstructions. But when taken immoderately, it will prevent sleep.

Savory; there are two kinds, *viz.* the *summer* and the *winter savory*: the first is propagated from seed in
March,

March, upon light fresh earth. The other is propagated by slips or cuttings in *March*, *April*, and *May*. When ready to transplant, set them five inches square in moist weather.

Their medical use is to make thin and cleanse the passages, and to expel wind.

Selfheal or *purnell*: by some called *carpenter's herb*, from the frequent use thereof to heal their cuts, wounds, &c. and as such deserves to be noticed, and cultivated in the gardens: for there is not an herb of more use than *selfheal* in the whole herbal.

This herb grows spontaneously in most fields throughout the nation, and keeps in blossom for the greatest part of the summer: sheds its seed at divers times, and sows itself, so as to rise again. But I would recommend to gather some of the wild seed and sow it about the end of *August*, and it will be greatly improved by next summer.

The decoction of *selfheal* made either with wine or water, joins and makes whole all inward and outward wounds: and the herb being bruised with oil of roses and vinegar, and applied to the forepart of the head, assuages the pain thereof: and it is of equal virtue with *comfrey*.

Solomon's seal. The sorts under our consideration are called absolutely *Solomon's seal*, and the *lesser Solomon's seal*. Both delight in fresh mellow ground, and are increased by dividing their roots, and planted any time in *March* or *April*.

These roots being stampd and laid as a poultice on broken bones, and green wounds, seals or closes them up. On being fresh, stampd and applied to any bruise, black or blue spots, acquired by falls, &c. these roots will take them away in one night, or two at most.

It is also administered inwardly with great success, for bruises, broken bones, &c. The patients take the juice of the root stampd in a little ale, which very speedily knits the bones together in a very strange manner.

In

In similar cases amongst horses or cattle, they stamp the roots and apply them as a poultice with the same effect.

The roots stamp and applied in manner of a poultice, and applied to members that have been out of joint, and newly set in their place, drive away the pain, and knit the joint very firm, and take away the inflammation if any.

Again, the roots stamp and the juice administered in ale or white wine; or a decoction thereof made in wine, helps any inward bruise, and disperseth congealed and clotted blood. So that *Solomon's seal* is supposed to be the best herb growing upon the earth for broken bones, bruises, &c.

Southernwood is propagated by slips planted in *March, April, May, or June*, on fresh mellow land, in the same manner as *lavender*.

The tops, seed, or flowers boiled, or stamp raw, with water, and drank, are a good remedy against the cramp, and sciatica, and greatly helps those whose sinews are shrunk. Being taken in wine, it expels worms: and the leaves boiled in water till they be soft, and beat into a plaster with barley-meal and hogs-lard, will dissolve all cold humours and swellings.

Thyme or *pot-thyme* is propagated either by seed sown in *March, April, or May*; or by dividing the root, about the same time. If boiled in water with honey, and drank, it is good against a cough and shortness of breath: provokes urine, and dissolves congealed blood.

Tobacco: I mean, *English tobacco* or *yellow benbane*, which, at its full growth, is about three feet or more in height, consisting of a very large green stalk full of spongy pith, and is divided into many branches set with large, very smooth, even, thick leaves, and full of sap, or juice. The flowers are produced at the top of the branches, in good order, of a pale yellow colour, and something less than those of the black *benbane*. The cups wherein the pods are situated,

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are very like those of the *henbane* ; but much less, and without acute points ; wherein is placed the hulk or pod, of a round form, full of very small seeds, not much unlike those of *marjoram*.

This most useful herb is raised from seed gathered in autumn ; and sown in *March*, or as soon as the seed falls in autumn : for it is a very hardy plant, and resists our winter's cold without any hurt. It delights in fresh, rich, mellow land, into which the plants, when as big as half a crown, must be transplanted into rows, each plant a foot asunder.

Of this make the following ointment. " Take three pounds and a half of green leaves, stamp them very small in a stone mortar, and put to them one quart of oil olive. Set these in a brass pan over a slow fire, boil and stir them continually till the herb appears of a blackish colour : and when it will not boil or bubble any more, take it off and strain it ; and put the clear oil (which will be then of a green colour) over the fire again, with the addition of half a pound of bees-wax, four ounces of rosin and two ounces of good turpentine ; melt them all together, and then pour the whole into a proper receiver or pot for use."

This green salve is of great service applied to burnings, green wounds, cuts, apothumes, tumours, inveterate ulcers, blotches, &c.

Violets are increased by parting the roots about the first week in *April*, when they have done blowing. Then plant them about nine inches asunder in beds of good mellow soil, in a shady situation.

The *flowers* of this salubrious plant decocted are good for all inflammations, especially in the sides or lungs. They take away the hoarseness of the chest ; allay the extreme heat of the liver, kidneys, and bladder, mitigate the fiery heat of burning agues, temper the sharpness of choler, and take away thirst.

The *leaves* of violets taken inwardly, cool, moisten, and make the body laxative, and being outwardly applied, mitigate all kinds of hot inflammations.

The *syrup* of violets softens the belly, and purges choler.

The *decoction* of violets is good in hot fevers, and the inflammation of the liver, and other interior parts. And the juice syrup, and conserve have the same virtues.

The *syrup* is also very good against the inflammation of the lungs and breast, pleurisy, and cough, fevers and agues in young children: especially if you put to one ounce of syrup, eight or nine drops of oil of vitriol, mixt together, giving the child a spoonful at a time.

Wormwoods (*common* and *Roman*) are either raised from seeds to be sown in *March* or beginning of *April*, or, are propagated from slips, planted about the same time, and will thrive in any sort of garden soil.

This herb is very good for a weak stomach, that is troubled with choler. Sometimes it will cure a long and lingering *tertian* ague. It creates an appetite, and clears away obstructions, bad humours, &c. by urine.

The leaves boiled in milk, or the seed given in treacle to young children, or others, kill and expel worms.

Wormwood makes an excellent bitter for malt liquor, which is commonly called *purl*. It prevents moths from destroying woollen cloths, and withstands all putrefaction.



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PRACTICAL DIRECTIONS

For Managing the

NURSERY GARDEN.

THE NURSERY GARDEN is a piece of land set apart for raising and propagating of all sorts of trees and plants, to supply the gardens and other plantations.

It ought to be well situated for water, and as near the house as convenience will permit, that it may be the more under the inspection of the master; who must take care to keep the ground always clean from weeds; and to see that the ground between the young plants be dug up, at least once in a year, so that the roots may have room to strike out. And in stiff ground it ought to be done twice a year, in *October* and *March*: because this will greatly promote the growth of plants, and prepare their roots for transplanting.

But in this treatise we shall confine our practice to fruit-trees.

Make your land rich and mellow, the most thriving and vigorous plants are best able to be removed, and succeed best when transplanted.

Trench and level the ground: upon which range out your stocks, methodically, *viz.* every particular kind by itself. Thus, those intended for *dwarf trees*, place them at one foot distance in the rows, leaving

two feet between the rows. *Half-standard*, being grafted, may stand at two feet distance every way; and stocks for *standard trees*, at three feet distance; and in such an upright form, that they shall all appear, from every point in view, exactly in the line.

In planting seedlings, shorten the tap roots, and take care in putting them into the ground, that no part of the root be doubled in, because such an accident may occasion the breaking off a principal root, and the loss of the tree.

If the land receives no benefit from digging it twice a year, you must endeavour to enrich it with dung, or other manure.

Bud or graft your stocks not according to their size, but those which appear most vigorous with shining barks; for the time will be shorter, which they take till the graft and stock is united together, i. e. till the stocks heal over. Such stocks as are grafted when young, prove good trees: but the stocks, which are large before budding or grafting are liable to many accidents.

The different METHODS of propagating TREES.

Trees are propagated by budding, grafting, laying, by suckers, and by planting of cuttings or of buds.

Budding, under which name we are to understand *inewing* or *inoculating*, is the art of placing a bud of any kind of fruit-tree between the bark and the wood of a proper stock, so that its wood and bark may be soon united to those of the stock, in such manner, as that it may become a tree of the same kind with one, from which the bud was taken.

This method of propagation is most in practice: because the bud in a very short time incorporates with the stock: or, if it fails, the stock will be fit for grafting or budding the next season.

And it has been found by practice, that pear-trees reared on quince-stocks by *inewing*; and all other fruit-trees

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trees which are inoculated, are better bearers, than those of the same kind grafted.

Grafting is thus performed, provide a branch of a good sort of fruit tree with part of the stem; and such roots as are known to be fit for drawing their nourishment from the soil: *viz.* for apple trees, provide paradise stocks, or any other proper stocks: for pear-trees, stocks of their own kind generally prove most successful; for many sorts of pears will not succeed on quince stocks. And most kinds of stone fruit must be grafted on their proper stocks.

Laying of fruit-trees is performed by twisting a branch of the tree to be propagated, and staking it down a proper depth in a trench of rich soil, four, five, or six inches deep; always keeping the top of the branch a little above ground. And this layer will root, and may be cut off from the mother tree and transplanted after the first year.

Suckers will be of the same kind with the trees; so that by those we may increase the number of good kinds, without either budding, or grafting, on stocks. Though it must be confessed, that trees from suckers neither grow so large, nor rise so high as those propagated upon proper stocks. But it is the best way to raise dwarfs from suckers, if properly trained. And *damascens*, and most plum-trees prove excellent bearers, when raised from suckers.

Cuttings of fruit-trees have sometimes succeeded. Thus, take a branch about twelve or fourteen inches long, thrust the thick end about eight inches into the ground, the lower extremity will throw out roots, and the part above the earth will after some time throw out buds, and shoots, and so become a tree.

These methods will maintain a stock of fruit-trees already known: but it requires farther skill to obtain a variety of new fruits, which is not yet reduced to method or any kind of certainty: the variety of new fruits depending entirely upon feed and accidents in the sowing, and attention to the manner of the growth,

eyes, foliage, wood and branches of the seedlings, these being the essential marks to distinguish good from bad fruit-trees.

The Times for Budding, Grafting, &c.

There are two kinds of *budding*: the *springing*, and the *dormant*. The *springing* bud grows soon after its insertion, which should be done in the beginning of *June* at farthest, or as soon as the sap is found to run freely between the bark and the wood in the stocks. The *dormant* remains inactive till the following spring, and is inserted some time in the month of *August*; which is the best method for plantations in the northern countries, because it grows apace after it is headed down in *April*, and acquires considerable strength before the approach of winter. Besides, agreeable weather about the decline of the sap in *August*, and the great choice of buds then on every kind of fruit-tree, are advantages in favour of the dormant kind.

Strip the stock of all lateral branches, at least a week before the ineying, in either way. And when the operation of the *springing* bud is finished, head down the stock directly to within a few inches of the bud.

The best buds are those taken from a regular well-formed wood branch. And choose such as are single, full, and vigorous. For *peaches*, *nectarines*, &c. choose buds with three eyes. And buds from all kinds of trees take best when the base of the wood is left equal to the inner surface of the bark; particularly in stone fruit.

For pear-trees and apple-trees, take a bud of the second year's growth, to be managed nearly the same as those of the first year's growth, only a larger portion of wood is to be left in the inside opposite to the bud. A hole opposite the eye of a bud renders it useless.

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Having made choice of a proper bud, fix upon a smooth part of the bark of the stock: then cut through the bark, or as deep as the wood, across the stem, a little above where you intend to put the bud: from the middle of this cross cut, make another slit, or cut perpendicular down the middle through the bark of the stock, as deep as the wood; and carry this cut or slit a little lower than the inserted bud will reach. This done, take the eye from the middle of the wood branch of a bearing tree, and the same year's growth in stone-fruit: in this manner, cut about a quarter of an inch, or a little more, above the bud, through the bark into the wood of the branch; and bring out the knife half an inch or thereabout below the bud: then raise the bark at the top with your nail from the wood, and separate the wood gradually the whole length of the scyon.

If after the wood has been taken out you observe a little of it remaining opposite to the eye, clap the leaf between your lips, (for you must save the leaf while you prepare the germ) and raise the bark of the stock, beginning at the top of the perpendicular slit. First raise one side the proper length, or a little lower than you expect the bud will reach, when it shall be applied to the wood of the stock: then raise the bark of the other side in like manner, and quickly insert the bud prepared, slipping it down between the raised barks: and after it is fitly applied to the surface of the wood on the stock, then lap the bark over it on each side, so as to leave the eye uncovered, and then tie it down carefully with woollen yarn or busses. This must be done so as to exclude the air and moisture, as much as possible.

But some prefer the following method. They make the cross cut or slit below, and carry the perpendicular slit upwards. In which case you must thrust the bud up, keeping the top of the eye uppermost. Which is the whole difference.

It is adviseable in about three weeks to loosen the bandage, and to tie it up again in such a manner, that

it may gently press the bud till *Michaelmas*, when the bandage must be removed quite away, but with great care, so as not to injure the bud.

It is a provident way to put two or more buds upon one stock in opposite sides of the stock, so that there may be a reserve if one fail; or otherwise they will together form the shape of the tree. And to prevent the buds being blown off when the stock shall be headed in the spring, leave a part of the stock remaining above the bud, to which the shoots may, the first year be fastened for security, and cut off the eminent part of the stock in the following spring.

As to the height of the buds; those intended for dwarfs, ought to be budded within eight inches of the surface of the soil. Such as are for standards, &c. at the precise height they are intended to be trained. And to strengthen your nursery, it will be proper to keep the stocks free from buds, shoots, and suckers.

After all, the ancients only cut a piece of bark from the stock equal in figure and size to the bud; and then tied the bud to the uncovered part of the stock, in such a manner as to exclude the air, and moisture, &c. which the *Romans* called *emplastratio*.

Of GRAFTING.

There are no less than eight methods of grafting of trees.

(1) *Cleft grafting* may be practised on stocks of all sizes, but succeeds best on those, which are not too large; and it is properly done in *February*, *March*, and *April*, in this manner: head down the stock, where the bark is clean and smooth; cut sloping thro' one half of the head, and pare the other half smooth horizontally. Then with a small knife, so placed that it may cut at once through the middle of both surfaces, give it a gentle blow on the back, that it may cleave the stock directly downwards for an inch long, more or less, according to the length and thickness of the graft to be inserted.

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Choose branches of well bearing trees, of one or two years old for grafts: but prefer those branches of one year, as have their eyes prominent and placed the nearest to one another. Four eyes are reckoned sufficient for the *imp*, though there is no reason to be over scrupulous about the number. Having taken the graft from the tree, be sure that the bark be free from blemish, be regular and smooth. Cut through the bark into the wood on each side of the graft, so as to form a notch or shoulder on each side, that are nearly equal on the opposite sides; and on the same plan, as both of them should rest on the smooth surface, on the top of the stock. Leave one eye above, opposite to the middle of the wood that is to remain. Then cut down each side, sloping equally, till this part of the *imp* resembles a wedge, with a sharp point. Open the slit you had made on the stock, and slip down the graft to the shoulders. Which will be effected with more ease, provided you thin the edge of the graft, that is to be inserted into the wood of the stock, a little more than the opposite side that is to be joined to the bark of it: join the bark of the graft and stock, the whole length of the insertion: and if possible, fit the woods of both properly to each other: covering the joint with green bark or any thing else, that will keep out air or wet: tie the stock with bafs, or woollen yarn, or rushes, and over all lay a covering of clay, so as not to cover the eyes of the graft.

In this condition grafted trees may remain till they have shot forth branches of a considerable length: and then take off the clay, and the several bandages from the stock: which ought to be kept constantly free from buds, suckers, and shoots.

In preparing grafts take this caution, don't cut the inserted part of the graft too thin at the shoulders: for it will be apt to break in that part by wind, if the head grows branchy. And note, when the stocks are small, they may be cut smooth at top, and then cleft, and the grafts for such might be made without shoulders.

But this sort of grafting does not always succeed in stone-fruit-trees.

Where the stock is large, several clefts, and all directed to the center, may be made in it, and one graft inserted into each, which is called *crown grafting*: and it is presumed that upright growing grafts are best for raising standard trees.

(2) *Whip-grafting*, so called from its being joined in the manner of a carter's whip: a method that succeeds best, when the graft is in size or thickness equal to the stock, or nearly so: and is thus performed. Cut the surface of the graft and stock sloping, so as they may be applied exactly to one another: and when the surfaces answer, and their barks are nearly joined, keep them steady, and having tied them carefully with bass or woollen yarn, cover them over with clay or wax.

Whip-grafting can only be put in practice on young stocks, or small branches of trees, in order to multiply different fruits on the same tree. Yet it is a method attended with great success: for the graft and stock soon unite or coalesce. But it is adviseable to make a slit across both surfaces, and indent them into each other, because that would forward their joining, and secure them from winds, &c.

(3) *Side grafting* is performed much in the same manner as *whip grafting*. You don't cut down the head, but stick in the grafts, as you find room in the head of the tree, applying them in such direction as you shall choose: and insert them in such a way, as that the two barks and wood may be contiguous. Then cover them from wet and air.

(4.) *Cheek grafting*, so called from the position of the graft on the head of the stock, upon the top of which it rests, is the easiest performed and soonest finished of any method: and succeeds in stone-fruit as well as apples, if done in *February* or *March* in *South Britain*, or in *April* and *May* in *North Britain*, in this manner: cut the stock over horizontally: pare the

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the top smooth, with a sharp pen-knife ; cut a slice in a gradual slope, from the side of the stock, and from its first entry into the bark, till it come but some way within the wood on the top, more or less, as you shall incline. Then take a graft with at least four eyes ; cut into this, on the side that is opposite the lowest bud, a little through a part of the wood, and make a shoulder : then slope it down gradually, so as to reach near to the lower part of the surface, from whence the slice of the stock was taken : then fit the graft to the cheek of the stock, where that piece was sloped off, and let its shoulder rest on the top. This done tie it tight with basses, or rushes, and clay it over the top and all round : continue the bandages as long as there are any leaves upon the tree ; and always contrive to place the grafts on the south side of the stocks ; in order to shelter them from the winds.

Most kind of trees take very speedily when grafted in this manner, and thrive well.

But in grafting stone-fruit, as plumbs, &c. it may be of use to head the stocks by slanting them upwards : then cut off from the stock a slice, ending above the undermost part of the slope, as it was left after heading down the stock. To this apply a graft without shouldering : but tie and clay, or wax it all over carefully. Make the slope of the stock long, that, in case of high winds, the graft, after it shoots considerably, may be tied to it, till the union be completed.

(5.) *Grafting in the lark*, which requires the head of the stock to be taken off and the crown pared smooth, as in *cheek-grafting*, is thus performed : raise the bark from the wood of the stock so far as to receive the graft prepared, as directed for *cheek-grafting* ; and thrust down, tied on, and clayed over in the same manner. But it has been experienced, that the graft will sit easier, and unite sooner, if a small part of the wood be cut off with a chissel from the stock, either before or after the bark is raised.

(6) *Flute-*

(6.) *Flute-grafting*, which is a method used, purely for *walnut-trees*. The stock and graft are nearly of the same size. Take the graft from the tree intended to be multiplied. Take it off in form of a virle, with one or two buds upon it, and place it upon a stock disbarked so as just to receive it. Being properly fitted, clay the top, and round the joined barks, so as to defend it from wind and rain; and keep the joints covered well till the barks unite and the graft coalesce with the stock.

(7.) *The Worcester grafting*; which is no more than inserting a large branch into the trunk of a tree cut down for that purpose; to be placed between the bark and the trunk, after sticking grafts round the trunk. But this is not so successful as *cheek-grafting*.

(8.) *Grafting by approach*; which is performed by putting the growing branch of any tree, that we incline, into the chest of a stock that has been headed down and prepared for its reception. There it is to be tied in such a manner, that by the nearness of the bark and woods, it may soon unite with the stock. Clay it over carefully, to preserve it from wet and wind. This union may not be completed for one or more years: then cut off the branch from the parent tree near to its union with the stock.

If we take the opinion of gardeners, they give the preference to this method of propagating fruit-trees.

USEFUL DIRECTIONS.

Bud or graft dwarfs, i. e. all trees that are trained to branch out near the surface of the soil, may be budded or grafted from four to eight inches from the ground, if designed for espaliers: but from four to five inches, if designed for walls.

Work half standards from three to five feet high; or, grafted as dwarfs, and trained to the proper height.

Standard trees for walls are best budded or grafted at the height proposed to train the branches from.

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Pear-trees to stand in orchards should be grafted on wild pear stocks, and trained to height by pruning. Or, in good soil and situation, bud or graft them six feet high, or, if intended for riders on walls, graft them to the proper height designed for the wall.

Apple-trees for orchards must be grafted on the wild crab. And these must be grafted and managed as directed for pears.

But *plums* for half standards, four feet high : for standards, at six feet, and the same heights will serve for cherries ; in order to prevent the trees from growing too much to wood, and to dispose them to bear sooner.

Of FRUITS cultivated in GREAT BRITAIN, and the
Stocks on which they are to be propagated.

We come to the knowledge of *trees* by their *fruits* : therefore we shall come to the knowledge of the several kinds of trees by reducing the *fruits* under distinct classes, viz. (1.) pippins, (2.) stone-fruit, (3.) nuts, (4.) small fruit.

(1) The *pippin* class have their seeds placed near the center : surrounded with a substance, which becomes either soft, or breaking, when they are in a state of ripeness, and are divided into *pears*, *apples*, *quinces*, *medlars*.

(2.) The seeds of the *second class* are also placed in the center, covered with a hard, stony substance, which substance is surrounded with a soft pulp when ripe. There is never more than a single seed in one of these fruits, which are called *apricots*, *peaches*, *nectarines*, *almonds*, *plums*, *cherries*, *olives*.

(3.) The *third class* produces a kernel in the center, which is the fruit covered with a shell, under which we enumerate, at present, no more than *walnuts* *chestnuts*, *hazelnuts*, and *filberts*, as they are more common in this island.

(4.) Under

(4.) Under the *fourth class* we rank *gooseberries*, *currants*, *barberries*, *mulberries*, *rasps*, and *strawberries*: whose seeds when ripe lie in a soft pulp; but, upon examination, some are found to resemble pippins; others to resemble stones.

By sowing the seed of the same species of fruit we shall obtain a vast increase with little labour, and a great variety. But the greatest part of the seedlings will be different not only from one another; but it is doubtful whether one of them does partake of the good qualities of the mother plant: so that this method of propagating may answer for orchards to make cyder; but budding and grafting are the only means to propagate good fruits with certainty. Neither can this be properly ascertained without a due knowledge how to obtain and choose stocks to bud and ingraft each kind upon.

Stocks are obtained after this manner. Raise them from seeds of *garden* or *wild pears*. But give the preference to the *wild pear* for vigour. So that the grafts inserted upon them, commonly thrive better; and they produce hardier trees. And you may know these stocks both in the seed-bed and nursery by their small leaves, numerous branches and frequent prickles.

In like manner, *apple-stocks* raised from the seed of *crabs* are accounted the best for grafting apples. They are more vigorous, and produce more plentifully; and are considerably hardier.

The seeds of grafted fruit may also be sown with the same view: though they don't equal the crab in goodness.

The true *paradise-stock* is a small shrub, that bears a fruit much resembling the least kind of *crab-apples*: and if they could be procured, they would much dwarf the ingrafted apple-trees, and bring them sooner to a bearing state than any other kind of stocks.

Any sort of fruit stones may be sown for stocks; but the muscle and white pear-plum are preferred for budding peach-trees, nectarine-trees, and the best kind of plum-trees.

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Stocks are best raised from the *white bullace-stone* for budding, or grafting apricots; for they will dwarf the tree without injuring its bearing.

Almonds have been sown for stocks to bud *peach* and *nectarine-trees* upon; but not with much success.

Cherries are grafted or budded upon stocks from the stones of *heart-cherries*, or any other sort: but if intended for standards in the open air, they should be raised from the *black cherry*, or from *geens*.

The management of these seeds require particular care. Take the pippin kind from the pomace or membranes that cover them, in such manner as not to hurt the included particles, and deposit them in dry sand till *October* or *November*, the season to sow them. Sow them from two to four inches deep; observing to place them deeper in light than in heavy soils; and if they do not appear the first spring, they will come up in the second.

The seeds included in stones, if sown directly, as the pippins will lie fifteen months or more in the ground before they come up; so that it is better to preserve them in dry sand, and sow them in the next year's *October* or *November*, placing them from four to nine inches deep, lest the frost should hurt them.

Kernels, or the *nut-kind*, must be placed from six to twelve inches deep, according to their size; and they will come up in the spring after they are planted.

DIRECTIONS for sowing SEEDS for FRUIT STOCKS.

If possible, choose a spot of land that has given proof of its fertility, by yielding a large increase of corn, &c. Trench it as deep as the good soil reaches, clearing it from stones, roots, and all kind of rubbish; and then level, or slope it, as best suit the surface. If permitted to lie fallow one year, and be well manured, weed, and dived for a year, it will be much for the better.

The

The ground now properly cultivated, or brought to a proper mould and degree of richness, divide part of it into beds of three feet and a half broad; on which sow the seeds intended for stocks, leaving paths eighteen inches or two feet wide; and cover the seeds to a proper depth with the earth taken out of the paths. Keep the beds clear from weeds always, and you will, in two years, have seedlings to transplant into the nursery.

Or, sow the seed in drills, at the distance of three feet, and as deep as the nature of the seed requires. Sow the seed rather thick in the month of *October* or *November*. If they come up too thick, draw them at one or two years old; and place them in a nursery by themselves. In doing this, leave those stocks, intended for dwarf-trees, at one foot distance from each other in the rows: those for half standards, in rows at two feet distance at least; and those for standards, at three feet distance. By which method of rearing stocks, the ground can be delved, or hoed with ease, between the rows; and dung can be carried upon the ground, if needful, and be pointed in without hurting the plants.

Besides, stocks raised in this manner, have been found fitter for budding and grafting in four years, than the transplanted sort will be in six. Again, they will take better when worked in both ways; and the bud and grafts advance faster.

Stocks may also be supplied by suckers that spring from the roots of trees, provided they be carefully raised from the ground, pruned properly, planted in such manner as directed for seedling stocks, and permitted to stand till they have got vigorous roots, and kept clean from all suckers.

Our best gardeners prefer the suckers of *black damask* and *Julian plum-trees*, for propagating the best kind of plums. The same doctrine, in regard to suckers, holds good for apples, pears, and cherries, when the suckers are taken from old and proper trees.

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Some use cuttings of quince-trees, branches of pear trees, of codlings, and some kind of apple-trees, with berry knots, or a scabby roughness on the back, planted in a rich soil in *September* or *February*, placed in the shade, and kept moist in spring and summer. But it is observed, that when these stocks succeed, they are only fit for dwarfs. The more certain method is to lay down the tender branches of a quince-tree; twist it, then lay the twisted part about five, six, or seven inches in the ground, with a forked stick, or some other contrivance to keep it fixed to the place where it is laid, but let the small end, with two, three, or more eyes, be raised a little above the surface of the soil. In two years at most, these layers will be fit to cut off, and transplant into the nursery: and you may obtain stocks from any kind of pear, apple, plumb, &c. by the same management.

Of the different Kinds of Apples, Pears, Medlars, Quinces, Apricots, Cherries, Nectarines, Peaches, Plumbs, Almonds, Currants, Gooseberries, Raspberries, Mulberries, Strawberries, Filberts, Hazel-nuts, and Figs.

We have a great variety of *apples* that suit divers purposes, *viz.* for *desserts*, for *kitchen* use, and for *cyder*.

The best for a dessert, according to their coming in, are the *white Fenitin*, *Margaret*, *summer pearmain*, *summer queening*, *embroidered*, *golden rennet*, *summer white Calville*, *summer red Calville*, *silver pippin*, *aromatic pippin*, *La Reinette Grise*, *La Haut-Bonte*, *royal russetin*, *Wheeler's russet*, *Sharp's russet*, *spice apple*, *golden pippin*, *nonpareil*, and *Pomme d'Api*.

Those for kitchen use, according to their ripening, are the *codling*, *summer marigold*, *summer red pearmain*, *Holland pippin*, *Kentish pippin*, *Pomme de Bardin*, *Loan's pearmain*, *French rennet*, *French pippin*, *royal russet*, *monstrous rennet*, *winter pearmain*, *pomme violette*, *Spencer's pippin*, *stone pippin*, and *oaken pin*.

The best sorts for cyder, are the *Devonshire royal wilding*, *red streak*, *Whitfour Herefordshire underleaf*,
and

and *John Apple*. To the sorts already mentioned, may be added *Whitmill's pippin*, *Pi'e's russetin*, *Dutch codling*, *royal rupert*, *leathercoat russetin*, *July flower*, and *beefing*.

There are as many or more sorts of *pears*; but the best sort are these; *Little Muscat Katherine*, *Windsor*, *Cuisse Madame*, *summer bon chretien*, *summer bergamont*, *orange bergamont*, *Burce du Roy* three sorts; *Lemon Bergamont*, *Grey Burce*, and *Verte Long*, this should be grafted on a free stock, and in a dry, warm soil; *green sugar*, *Monsieur John*, and *white and grey*, this last should be grafted on a free stock, and have a middling soil; *Crysane*, and *winter thorn*, this sort should not have a strong soil; *Virgoleuse*, grafted on a free stock, and be allowed thirty feet for an espalier; or, if grafted on a quince stock, upwards of twenty feet; *L'Echasserie*, and *Saint Germain*, this last in a dry, warm soil; *Martinsee*, and *winter bon chretien*, this should be grafted on a free stock, have a good soil, and a S. E. wall; *Colmar*, *Chaumontelle*, *Lixer Blanc*, *marquise*, *royal winter*, *Jargenette*, and *Bergamont de Pasque*. graft this last on a free stock, in a good soil; and a S. E. wall; *Cally rose*, *St. Michael*, *Cytron de Kirmis*, *Ambrete*, *sans pippin*, *swan's egg*, *Bergamont de Bourge*, *St. Martial*, *doub'e-blossomed*, and *Katharine*. The best sorts for baking are *Wardens*, *Worcester black*, and *Spanish bon chretien*,

There are two sorts of *medlars*: the *Nottingham*, and the large *Dutch*.

There are six sorts of *quinces*: the *pear*, *apple*, *broad leaved Portugal*, the *oblong smooth eatable fruit*, the *oblong downy fruit*, and the *common narrow leaved*.

There are eight sorts of *apricots*: the *orange*, the *masculine*, the *Algier*, *Roman*, *Turkey*, *transparent*, *Breda* and *Brussels*.

There are thirty sorts of *cherries*, viz. the *common red*; *Hearts*, *red*, *white*, *bleeding*, *black*, *ox*, *late amber*, and *large Spanish*; the *May*, *Mazzard*, *Arch Duke*, *Holman Duke*, *May Duke*, *Carroon*, *Flemish*, *Morello*, *Gasoign*, *lukewarm*, *yellow Spanish*, *Flanders cluster*, *carnation*, *large black*, *bird*, *Cornish*, *double-*

double-flowered, large double-flowered, common wild, northern wild perfumed, and striped-leaved.

There are eleven sorts of *nectarines*, viz. *Fairchild's, Elruge, Newington, scarlet, Bruynon or Italian, Roman red, Murry, golden, Temple's, Peterborough, and Whitmill's early.*

There are thirty-six sorts of *peaches*, viz. the *nutmeg, red and white; noblest, mignonne, Milet's mignonne, vanguard, old Newington, early Newington, Montabon, Albemarle, bellows, admirable, Anne, double mountain, Royal George, Katherine, musk violet, two sorts; bloody, pawie royal, monstrous pawie of Pomponne, rumbullion, cotton apple, St. Laurence; Magdalene, white and red; Belguard, yellow Alberge, Italian, Drusei, belle Chevreuse, Nivette, Chancelier, Portugal, Teton de Venus, and purple.*

There are thirty-seven sorts of *plumbs*, viz. *green gage; perdrigons, white, violet, and dark; royal, Queen Claudia, Roche Courbon, Orleans, white Holland, drop d'Or, marvel, damson; Jean batave, white and blue, Christmas, Myrobalan, Morocco, Imperial, Muscle, Queen Mother, violet of Tours, apricot, royal bonum magnum, white pear, Damascene, little black damask, Fotheringham, Cheston, maitre Claude, Rognon de Coq, Saint Katherine, Mirubelle, Brignole, Empress, Monfieur, cherry, and Saint Julian.*

There are three sorts of *almond trees*, viz. the *common large, the sweet with tender shells, and the white flowered.*

There are fourteen sorts of *currants* viz. *large Dutch, white and red, common white and red, black, black American, black with striped leaves, Champagne, gooseberry leaved, small wild, yellow striped-leaves, common, with leaves variegated green and white; white, with striped leaves, and striped gooseberry-leaved.*

There are divers sorts of *gooseberries*, viz. *common, large manured, red hairy, large white Dutch, large amber, large green, large red, yellow leaved, striped leaved, the small hairy musky green, the claret, &c.*

There

There are six sorts of *mulberries*, viz. *common black, white, lesser white, small purple, broad leaved Virginian long red fruited*, and *large leaved Virginian*.

There are fifteen sorts of *rasberries*; but the best fruited that deserve cultivation, are the *white* and the *red*.

There are seven sorts of *strawberries*, viz. *white and red, wood, the hautboy, globe hautboy, the chil, scarlet and greenish white*.

There are only two sorts of *silberts*, viz. *red*, and *white*.

There are four sorts of *hazel-nut-trees*, viz. *wild, small manured, large cob-nut*, and the *Spanish nut*.

There are sixteen sorts of *fig-trees*, viz. *long blue, long white, early white Marseilles, great round white, small brown, great long black, Brunswick, roundish white striped, green, the Marseilles, yellow, great long violet, rose, great white Turkey, great black with white pulp*, and *Whitmill's purple*.

Of the Variety of EVER-GREENS.

The nursery-man's labour does not terminate in fruit-trees: he must have a stock of *ever-greens*, and *flowering shrubs*.

Ever greens are propagated by *seed, cuttings, layers*, or *suckers*.

The *fir, pine, evergreen oak, holly, yew, bay, box, laurel, phillyrea, juniper, piracantha, arbutus, Italian green privet cyprus, cedar of Libanus*, &c. are propagated by *seed*.

The *yew, laurustinus, laurel, box, bay, phillyrea*, and *piracantha*, by *cuttings*.

The *holly, yew, laurustinus, bay, box, laurel, phillyrea, alaternus, piracantha* and *arbutus*, by *layers*.

The *bay, box, laurel*, and *phillyrea*, by *suckers*.

In order to succeed in raising this part of the nursery, keep the seed, the first summer after it is gathered, in sand, and sow them in the spring.

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When they are to be raised from *cuttings*, let the *cuttings* be made fifteen inches : make trenches a foot distant from one another. Plant the *cuttings* in rows along this trench, about eight inches deep, and four inches asunder ; and between each row so planted, a moderate thickness of horse dung ; and water them plentifully in dry and hot weather.

To propagate them by layers, you must pick out a piece of rich ground, or enrich and prepare it for that purpose ; and then perform the operation in the manner directed by Mr. *Langley*, page 117. Trench, says he, your ground two spit and a crumb deep, and in very small spits, in which plant mother-plants, called *stools*, in such a quantity as will produce the trees required. This plantation must be made in *October* ; and the *stools* set at the distance of eight feet from one another, will produce layers or plants to be laid down in the *February* or *January* after they are sprouted. To every stool you will have principal branches of last year's growth, which you must pluck at their bottom, that they may be made easier to be laid down. This done, twist all the side shoots, at such a convenient place, as will admit of the twisted part to be about eight inches deep, which may be let in with a trowel or spade ; and the extreme part of every shoot, to be shortened to five or six inches, or more, if need be, always leaving three buds at least above ground. Place the layers upright ; and not too thick. In *October* following, if the season permits, take off the layers, prune away all the parts of those principal branches before plucked, to give room to those other shoots as are to succeed them ; which must, in like manner, be laid down in the spring following ; and so the like every year.

Of the Culture of EVER-GREENS.

The *pine tree seed* is sown in *February* or *March*. It is a noble plant when reared : it delights in a fresh gravelly

gravelly soil, mixed with loam. Prune off the side-branches as they break out, and will greatly add to their growth. Never head this tree; and at transplanting of *pin*es, take care to secure them with stakes, that the wind may not disturb them in striking root.

The *fir tree*, of which there are many sorts, is propagated and managed in the same manner as the *pine*. The *Scotch fir* is most in vogue, and is a very beautiful plant.

The *evergreen oak*, a tree of quick growth, and naturally very large, is increased from seed, or acorns, sown in *February*, and the beginning of *March*, about five inches square of one another. The mould must be good, and the ground kept clear of weeds. They must continue in the seed-bed two years, and be frequently watered; and when transplanted, they must be set at two feet and half distance. They love a deep, loamy, moist land; and will thrive best with their tap-roots cut off.

Holly, (the *wild* or *green*) is raised generally from its own berries, gathered ripe, and sweated, so as not to be made over hot. Plant them in a sandy gravelly soil. Sow them in the beginning of *March*, and, following the same method as directed for the *pine*, remove *hollys* in *April* or *August*. They must be often transplanted to prevent tap-roots. If intended to propagate the variegated kinds, or the *green holly*, provide cuttings of those kinds to be grafted on young stocks, of five or six years growth, in *April*, or budded in *July*, if the grafts should fail: observing, that the leaves of the cuttings be carefully cut off.

The *yew-tree* seed must be ordered as the *hol'y*; and will not come up till the second spring after gathering. It is a tree of slow growth: and delights in a light sandy, but moist soil. Transplant it in *April* or *August*, as directed for the *pine*: and in the nursery set them in rows about three feet asunder; the distance between the rows two feet and a half.

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The *bay-tree*, raised from its berries, must be thus ordered: Gather the berries full ripe; lay them in a dry place to sweat; then keep them in dry sand till the beginning of *March* following; then sow them in a bed of fine earth: let them stand three years in the seed bed, and then transplant them into the nursery, and prune off their roots. Dig about them every year. Keep them free from weeds, and transplant them every third year. Never prune this tree with sheers: it will thrive when trimmed with the knife.

If intended to increase this tree by cuttings or layers, do that work in *October*, as has been directed.

The *laurel tree* is propagated from seed or berries; and from cuttings and layers; and will thrive in any land not too hot. It is a great enemy to sheers also.

Laurustinus, an ever-green and flowering shrub, is propagated by cuttings and layers; and delights in a moist sandy loam. Lay down the layers, or plant the cuttings in *October*, and transplant them in the *August* following. There is a sort that blows very early; and another called the *black shining laurustinus*, which blows late in the winter, and continues till the end of *May*. Neither must be pruned till the bloom be gone.

The *phillyrea* is a most beautiful plant. There are five sorts; but none of them, except the *true phillyrea*, is able to endure hard weather. They are all increased in general from layers laid down in *September* or *October*, and planted the *August* following.

The *arbutus*, or *strawberry-tree*, which produces blossoms twice a year, and has ripe fruit in winter, is propagated from seed or layers. The fruit is ripe about *Christmas*, and resembles a *strawberry* in shape; but tastes like the *service*. Dry the fruit; then break them to pieces, and keep them in sand till *April*; then sow them in a bed of fine earth, covered over with fine mould sifted thereon. Keep the earth moist; but take care not to give so much water as to disturb the seed or seedlings. These seeds thrive best on a
decayed

decayed hot-bed. If to be raised from layers, lay them down in *September*, or the beginning of *October*, to remain two years at least upon the stool, that they may be well rooted; and water them in dry and hot seasons.

The *piracantha* is raised from its berries, or from layers, which must be managed as directed for the *yew* and *holly*; because they do not grow, or come up, till the second spring after ripening.

You must chuse the most tender branches of the last year's shoot for layers. This too must be done in *October*, and remain upon the stools two years before they are taken off: then they may be transplanted in *April* or *August*. They delight most in dry gravel; but thrive well in any loamy lands that are not very wet or cold.

This tree produces fine branches of white blossoms in *May*, and clusters of red berries all the winter.

The *box-tree*, both plain and variegated, may be raised both from slips, layers, and seed. Its chief delight is in chalky hills: but those trees thrive very well in loamy soils.

The *juniper tree*, both *English* and *Swedish*, are hardy plants, and propagated from seed or berries sown in *March*, in dry ground: which will come up in six weeks or two months after sowing: and they must remain in the seed-bed two years, kept clean from weeds, and watered in dry seasons; then transplanted into the nursery. The oftener these trees are transplanted, the better will they be rooted. In pruning them, cut away the tap-root: and in planting them, place the roots in a horizontal position.

Italian green privet is raised from its berries, sown in *March* on a bed of slight earth, inclining to a gravel. Cover the berries with about an inch of fine earth sifted over them. Keep them clean of weeds, and water them in dry weather. After two years transplant them. This is the plant called *olivetta*, because its leaves resemble those of the *olive*.

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The *cyprus*, *lignum vitæ*, and *cedar of Libanus*, are cultivated in the same manner as the *ever green*, the *oak*, *pine*, &c.

Of the Variety of FLOWERING SHRUBS.

The *flowering shrubs*, which are most admired, are the *tulip-tree*, the *passion-tree*, *Spanish broom*, *laburnum*, *senna*, *arbor Judæ*, *mezerion*, *jessamine*, *honeysuckle*, *lilac*, *roses*, *syringa*, *guilder rose*, *almond*, *Mirabalon plum*, *doub'e-b offom cherry*, *sweet brier*.

Of the CULTURE of FLOWERING SHRUBS.

Flowering shrubs are propagated also from *seed*, or *layers* or *cuttings*, and from *suckers*.

The *tulip-tree*, so called from its flowers, which shoot at the end of its branches, in the shape of a tulip, is a native of *Carolina* and *Virginia*. Its seed never ripens in *Eng'land*: it must be had from *North America*, if propagated from seed with us. However, if we suffer young shoots to break out at bottom, or cut down the plant as a stool, and the young shoots being laid down, as layers of fresh trees, &c. they will strike root, and grow very well. It delights in a sandy warm loam. The seed must be sown in *August*, in pots filled with the said loam: the pots must be housed, or sheltered all winter; and in spring the seeds will come up. Keep the seedlings free from weeds, and let them be watered discretionally. After they have remained two years in the seed-pots, transplant them into large pots singly; and let them continue there for eight or ten years, sheltered every winter, and taken up, and replanted again in the same pots every third year, in order to create good roots.

The *passion plant* is commonly increased from layers or cuttings; but I have frequently raised these plants, and in great perfection, from *seed*, by sowing it in *April*, in light earth; which in two years will

bear blossoms. If intended to be increased by *layers*, you must lay the bottom branches down, about seven or eight inches deep, about the middle of *March*: if by *cuttings*, plant them towards the latter end of *May*, or in the beginning of *June*.

The *Spanish broom* is generally increased from seed sown in *March*, upon a bed of light earth: but it may be increased from layers laid down with twist, or with a cut in the joint.

The *laburnum* is propagated from its fruit or seed, which is ripe in *September*. This seed is to be sown in *March*, and remain in the seed-bed two years, and then transplanted into the nursery, or elsewhere.

The *fena*, (both the *bladder* and *scorpion*) are propagated by seed sown towards the end of *March*; or by layers laid down in *October* or *April*; and delight in good loamy land.

The *arbor Judæ*, a very beautiful plant brought from the *West Indies*, is raised from seed sown in *March*.

The *mezerion*, (*white* and *red*) is increased from its berries sown in *March*; and loves a sandy loam.

The *jessamine*, (*white*, *yellow*, and *Persian*) is increased from *layers* or *cuttings* planted in *September*; taking care to bury two or three joints in every layer, and cutting, in the ground.

The *Spanish white* fort may be grafted on the *common white*. It is a sweet delightful flower; as also are the *Italian* and *Portugal* jessamines, whose flowers are very large and beautiful.

The *honeysuckles*, of which there are the *evergreen*, the *early red*, the *late white* and *red*, and the scarlet flowered sort, are, in general, propagated from *layers* and *cuttings*, in the same manner as jessamines.

The *lilac*, (both *white* and *blue*) is raised from *suckers* taken off and planted in *October*, or latter end of *September*, in a light soil; or from layers laid down in *March*.

Roses, of which delightful shrub Mr. Miller enumerates forty-six sorts; and out of these gardeners generally

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generally content themselves with raising, the *monthly rose*, the *cinnamon*, the *damask*, the *cabbage rose*, the *Rosamundi*, or *York and Lancaster rose*, the *Provence rose* the *white musk*, the *red*, and then the *yellow*, are propagated from *layers* or *suckers*; the *layers* laid down in *September* or *October*; and the *suckers* planted in *October*.

The *fyringa*, is propagated from suckers taken off and planted in *October*.

The *Guilder rose*, or *May rose*, is propagated in the same manner as the *fyringa*; and both of them in a good strong loam.

The *almond-tree* is raised from its own kernel, sown in *March*, or the beginning of *April*; or it may be grafted on the plum-stock in *February*, or budded on the same in *July*. When raised from a kernel, it requires a sandy loam; but a stronger land when grafted or budded.

The *mirabalon plum*, and *double blossom cherry*, thrive in most soils; and are propagated by grafting the first on a plum-stock, the latter on a cherry-stock.

The *sweet-brier*, (or common sort) is raised from berries sown in *February*. The *Eg'antine* sort, which produces a fine red flower with broad leaves, is propagated from layers laid down in *September*. *N. B.* This sort raised in pots, with a good head, is an excellent ornament in a chamber or parlour chimney.

The WORK and LABOUR of a NURSERY GARDEN, in JANUARY.

You may remove forest trees of the hardy kind in mild weather.

Trim up the stems of forest trees, if required.

Prune honey-suckles and roses, and other flowering shrubs, if necessary.

Begin to transplant hardy flowering shrubs into a dry soil.

If it be hard frost, employ your time in bringing in dung and making compost: if it be open weather, prepare the ground for planting of young trees in the spring, and for sowing stones and kernels for a supply of stocks; and for raising evergreens, flowering shrubs, and forest trees.

Shelter all the tender sorts of seedling trees, shrubs, &c. raised from seed last year, in the best manner you are able, with mats, frames, litter, &c.

Plant cuttings of *gooseberries* and *currants*; and plant them half their length in the earth. This is the best way to propagate them. These cuttings must be of last summer's growth; and from ten to fifteen inches long, according to their growth. Plant them in rows about twelve or fifteen inches asunder, and in a shady border. They will make good shoots the following summer; and the third year will produce fine fruit.

IN FEBRUARY.

Finish digging between the rows of trees and shrubs, and continue planting cuttings of *gooseberries* and *currants*.

Plant also cuttings of all hardy flowering trees and shrubs, that may be propagated in that manner; for most of those that are now planted, will be well rooted in the *October* next ensuing.

This is the best season to lay down the branches of all exotic trees and shrubs; and of such hardy trees and shrubs, as are propagated by this method, fastening the layers in the ground with hooked pegs: these layers, now laid down, will be fit to be transplanted by next *October*.

You may also transplant such layers as have not been taken off in former months, in the manner as directed above.

Sow kernels and fruit-stones to raise a supply of stocks; and begin to sow the seeds or berries, &c. of hardy forest trees and shrubs.

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Finish the transplanting of flowering shrubs within the compass of this month, if possible; and also the trimming the said shrubs, if they should want it; observing to train the plants, as near as you can, with a single stem; to make a handsome head, and to take off carefully all suckers.

Hardy forest trees may be removed any time this month.

Fruit-trees removed in this month, succeed well; but it is best to transplant them early.

Plant stocks for budding and grafting; and head down the stocks that were budded last summer, within about four inches above the bud, with a sharp knife.

Begin grafting towards the third week, if the weather prove mild; for it is found, that this is the proper season for pears, plums, and cherries. The method for doing this has been already given.

IN MARCH.

March is the principal season to graft apples: tho' you may, in mild weather, begin a week or two sooner. This also is the time, as the shoots push, to shorten the shoots of trees that were grafted a year ago. They must be shortened to four or five eyes; and the stocks budded last summer with fruit, must have their heads cut off, which will give nourishment to the bud. Cut about a hand's breadth above the end, on the opposite side of the stock; and cut it sloping.

Sow the seeds of hardy shrubs and trees of the exotic kinds; or plant the cuttings of such as are to be increased by that way. See the culture of evergreens and flowering trees and shrubs.

Inspect seed-beds of trees and shrubs; and weed with the hand carefully, where needful.

This is a right season for planting vines from shoots of last summer's growth, ten or twelve inches long,

and planting so deep as to see no more than one eye, and that close to the surface of the earth.

In APRIL.

Finish the sowing the seeds of trees and shrubs intended to be sown in the spring ; and finish the transplanting of *evergreens* before the 15th day of *April*, and, if possible, sow in cloudy dripping weather.

Replace the clay carefully, if any be found dropt from the grafts ; and rub off all shoots that shew themselves below the grafts.

Examine new budded trees, which will begin to make their first shoots. See that they are not destroyed by insects : the insects harbour and generate in those leaves you find to be curled : they must be pulled off ; as also the shoots that put out of the stocks.

You may still graft the latest kinds of every sort of fruit-trees, and the *variegated holly* ; and you may graft by approach on *evergreens*, or any shrubs or trees, provided it be done before the 15th day.

In MAY.

Evergreens and other shrubs may be now propagated by layers made of the shoots of the same year : bring them down gently to the ground ; fasten them securely with strong pegs in the earth, and cover them two or three inches deep with mould, giving them a moderate watering. Do this work from the 20th of *May* to the end of *Ju'y*.

About the 25th of this month, take off the clay from the grafts, and loosen the bandages, and rub off all shoots from the stocks, and below the grafts.

But the greatest attention is to be paid to the weeds and state of the season and ground. Keep every part extreme clean of weeds, by applying a sharp hoe between the young trees and shrubs. If the weather be dry, or the ground parched, water all young trees and

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and shrubs, in the evening, moderately ; or, where that cannot be done conveniently, lay some mulch on the surface of the earth, over the roots of the shrubs, which, by preventing the sun from drying the earth too fast about them, will release you from watering those plants more than once in eight days.

In JUNE.

About the 18th of *June* comes on the season for *inoculating apricots*, and early *peaches* and *nectarines*, upon plum stocks, according to the instructions already given in page 150.

If the trees budded or grafted last summer, have made vigorous shoots, drive a stake on each side of such a tree, and tie the shoot to the stake in two different places.

Lay down the young shoots of the same summer's growth, of hardy exotic trees, in the manner directed in p. 165. But this is better done after *Michaelmas*, or in *February* or *March*.

Some *roses* produce no suckers from the root : these must be increased by inoculation ; for which this is the properest season ; and the best stocks are the *darmask* kinds.

Water seedlings in dry weather ; but do it gently, about three times in the evening ; and shade the seedling exotics from eleven to three in very hot days. Do not forget to weed every part well ; and lay mulch above the roots of new planted trees ; and lay on more where it has been washed off.

In the last week of *June* transplant young *pines* raised this season ; set them in rows about three inches asunder every way ; water them ; shade them with hoops and mats from the *meridian* sun till they have taken root.

In JULY.

This is the properest season to bud *apricots*, *peaches*, and *nectarines*. Do this work as directed before.

Bud *pums*, *pears*, and *cherries*, upon stocks raised from the stones; and *pears* upon quince and pear-stocks raised from kernels.

Rub off all shoots from the stock below the bud and graft. Stake up the heavy heads of vigorous plants. Transplant seedling *firs* and *pines*, when the seed-bed is crowded: but they must be shaded and watered till taken root.

Repeat the inoculation of *roses* upon any stock taken from the common kind.

Some will bud *jessamines*; and say that it is the most certain method to raise the curious kind. Do this upon the stock of a common white *jessamine*, in the first or second week of *July*: and this is the season for inoculating many other shrubs and trees.

The rest of the work in this month is *watering* and weeding, and destroying of vermin and insects.

In AUGUST.

Budding may still be performed before the 15th of this month.

Examine and untie the bafs a little upon the parts about the buds lately made or put in.

Where the seed-beds are crowded with seedlings, you may transplant *firs* and *pines* in the beginning of this month, in moist or cloudy weather.

Dig up and lay in ridges the ground intended for plantations this autumn.

Weed and water seedlings; and in general hoe up and rake off weeds from every part of the ground.

Cut vigorous shoots off close in forest trees; and trim the evergreens, and such other shrubs as stand in need thereof, as directed in *February*.

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In SEPTEMBER.

Continue trenching, &c. to prepare ground for new plantations ; for in the last week of this month you may transplant many kinds of trees and shrubs of the hardy kinds : but, if the weather be dry, remember to give them a hearty watering. And I would have it observed, that, by transplanting soon after the leaf decays, the plants have time to take tolerable good root before the frost sets in hard ; and to be so well established the next summer, that the drought will not be able to hurt them.

But by no means attempt to remove a tree that is not entirely divested of all its leaves : in which state any tree may now be transplanted.

About the end of this month you may transplant into their proper places, stocks for budding and grafting ; and plant cuttings of those trees which are to be raised by that method.

Gooseberries and *currants* are, from the middle of this month to the middle of *February*, propagated by cuttings or slips. See *January*.

Plant cuttings of *honey-suckles* about the end of the month. Let them be young shoots, from nine to twelve inches long ; and plant them half length in the earth, and about ten inches distant each way. At the same time and manner, you may plant cuttings of all hardy plants : and it is esteemed the best season to plant cuttings of *laurel*, and the *Portugal laurel*, in a shady border : but strip these cuttings of their leaves only half way up the shoot ; putting each cutting into the earth, so far as it is stripped.

Towards the end of *September* transplant *laurels*, *laurustinus*, *arbutus*, *pyllyrea*, &c.

In the mean time, every thing you sow, plant, or remove, must be watered with discretion ; and no labour must be wanting to destroy vermin, and to keep the ground free of weeds.

In OCTOBER.

This is the best season for propagating *forest trees* and *flowering shrubs* by *layers*, in the manner already described: and now also is the season for taking off the layers of all trees and shrubs laid twelve months ago; to be planted as has been directed in page 149.

All hardy trees and shrubs that will increase by *cuttings*; such as the *honey-suckle*, *gooseberry*, *currant*, &c. may be propagated by *cuttings* or *slips* in this month.

Yew, *holly*, *hips* and *hawthorns*, are raised from berries sown in this month: and if acorns be kept longer than this month out of the ground, they will begin to sprout: therefore sow *acorns* now upon a bed of good soil, and cover them with an inch thick of mould.

Plant out stocks, in rows, to bud and graft upon, at about fifteen inches distant, in rows thirty inches asunder.

Transplant any hardy tree or shrub in the course of this month.

Prune all sorts of trees that want it.

Sow more plum-stones for raising stocks, reserving a few in sand till the spring, or *February*, lest these should be destroyed by vermin or frost.

You may still in the beginning of this month, plant cuttings of *laurels*; and transplant *laurels*, *Portugal laurels*, *laurustinus*, and such like.

In NOVEMBER.

Prepare your land for new plantations in *February* or *March*, by digging and trenching: and finish the transplanting as soon as possible, if any be left undone.

Stake and tie new planted trees: lay mulch on the roots of new planted trees and shrubs; and cover the beds of seedling exotic plants, in sharp frosts, with
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hoops and mats ; or cover them totally with pease-straw, or such like.

If you have any plants in pots, plunge the pots to the rim into the earth in a dry and warm situation ; and in that form they may be easily covered.

In DECEMBER.

Continue trenching and digging for the spring plantations ; and dig the ground between the rows of trees and shrubs, taking care of the roots of the plants, and burying the weeds, replacing the earth with dung, where it shall be wanted.

Shelter, as directed last month, not only the seedling exotics, but the beds of seeds lately sown, with straw or dry litter in severe weather, and before the frost has penetrated into the ground : and finish the work of the nursery in this month, with a proper attention paid to the tenderer sort of new planted trees, as directed in *November* and *October*, by laying mulch, and driving stakes to keep the roots warm, and to support them from the wind.





PRACTICAL DIRECTIONS

For the Management of the

FRUIT GARDEN.

BY a *fruit garden*, I would be understood not to confine the idea thereof to a spot of ground called an *orchard*, or planted solely with fruit-trees, and other plants: but to deliver such instructions, as shall promote the cultivation of *fruit-trees* and plants, wherever they are designed to be planted, whether by themselves, or in the *kitchen garden*, or in the *flower* or *pleasure garden*, or elsewhere, as most convenient to the owner or gardener.

This *fruit garden* is supplied with trees, &c. from the *nursery*, of which you have already a sufficient account, to enable you to raise such trees and plants as are required to furnish you with fruits of all sorts. The only difficulties then are, to *place*, and to *prune* what shall be transplanted from thence into the *fruit garden*.

You will find a catalogue of the best kinds of *fruits*, and consequently of the *fruit-trees*, you would choose to plant in your garden, in page 161—164.

In planting and placing fruit-trees, there must be great care taken to inspect the nature and situation of the soil, wherein they are to be planted. For it is natural to conceive that trees will thrive best, when adapted to their proper soils, and to proper aspects.

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The best situation for *fruit gardens*, if intended for that purpose only, are the *south*, and a declination of 45 deg. from S. to E.

An exact *east* wall is not to be despised: it has the whole morning sun in *summer* and *autumn*, and is defended by its position from the S. W. winds, which are often destructive to fruit in *autumn*. Besides the fruit often ripens better in this situation, than on a south-wall: for the morning sun in the summer is the very best for that purpose.

The accidents attending this exposition, are the N. E. and *easterly* winds, which blast *peach-trees* and kill other fruits at the time of their knitting or setting for fruit.

The S. exposition receives the sun soon after six in the morning from the 10th of *May*, and continues till near six at night. But it is liable to be injured by the *east* and by *south* winds, which often blight *peaches* and *apricots*.

The *west aspect* is best with the sun's rays, when it has past the meridian, and continues till it descends the *horizon*. But the fruit is generally ten or twelve days later in ripening, and are seldom so good as those in the east aspect, yet always in greater abundance, being defended from the N. E. the E. and easterly winds, which in the spring destroy the bloom and tender fruits of the *eastern aspect*. Nevertheless the west situation is subject to many accidents from high and turbulent winds about the end of summer.

The *north aspect* is the coldest, and is exposed to the *north west*, *north east*, and the *north winds*, which are injurious to fruits: yet here we may produce good crops of *morella cherries*, several sorts of *plums*, and *duke cherries*.

Suppose then you would plant a piece of ground of *three rood*, viz. three hundred and twenty feet long from E. to W. and one hundred feet wide from N. to S. see the *copper-plate*.

Place or plant your trees in these aspects, beginning at the N. W. corner, and at the distance of fifteen feet or thereabouts, two black cherries of the large sort, two *Flemish* cherries, one damson at twenty-eight feet distance, two duke cherries, two white heart cherries, one caroon cherry, four black mulberries, one caroon cherry, two carnation cherries, two *English* cherries, two lukeward cherries, two early *Flanders* cherries, two cluster cherries, one bleeding heart, along the north side, or south aspect.

At twelve feet parallel distance from this outward N. wall, let there be another composed of two sides: and plant the north side or aspect thereof with an orange, a white mogul, a green gage, a damson, a maitre claud, the mordier and the violet plum; and with eight morella and seven duke cherries. And plant the south side or aspect of this wall with the best peaches, grapes, cherries, summer pears, figs, viz. one red *Magdalen*, one noblest, one *Swiss*, one *Abemarle*, one *Belchevereux*, one *Ann*, one yellow *Alberge*, one old *Newington*, one early admirable, one minion, one montabin, and one white *Magdalen* peach: one muscat, two white muscadine, one cluster, one claret, one black frontiniac, two black muscadines, one white frontiniac, grapes: one early *May* cherry, one *Holman's* duke, one lukeward cherry: the white and blue fig: one buree, one summer bonchretien, one gros rousellet, one vermilion, one summer burgamot, and one autumn bonchretien pear.

At the same distance of twelve feet from the south side of the ground, let there run another parallel with this from E. to W. and cover it in this manner. On the N. side plant two morella cherries. On its south side plant one nivet peach, one bellgard, one late purple, one late admirable, one Catharine, and one malecotune peach: one black currant grape, one *Burgundy*, one *July*, one sweetwater, and one muscat grape: one *Turkey* apricot, and one orange apricot, one blue perdigon, one white perdigon, one green-

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Plant on the wall at the east end of the garden an espalier of codlins; and from thence, at the distance of twelve feet, let there be a wall to run N. and S. and on its east side plant a rochorbon, a reine claudé, a queen-mother, a la royal, a white matchless, and one imperatrice, plums. On its west side, a peach royal, a bourdine, a swalse, and a native peach, and a green-gage plum.

Against the west extremity plant an espalier of codlins: and on the wall twelve feet within this espalier, plant, on the E. side, one colmar pear, the pickering, the la marquis, and the pound pear; and one orline plum. On its west side, plums of any sort, and two figs.

Or, you may plant or dispose of your trees, according to the following directions.

Upon the north side facing the south.

Cherries of different kinds, damsons, mulberries, peaches of all sorts, nectarines, grapes, summer pears, figs, apricots, plums, winter pears,

Upon the south side facing the north.

The orline, white mogul, green-gage, maître claudé; the mordin and violet plums, morella and duke cherries.

Upon the east side facing the west.

The Rochorbon, reine claudé, queen mother, la royal, the matchless, and the imperatrice plums: the colmar, the pickering, la marquis, and the pound pears: orline, the virgoulee, the royal d'flyver, and the

the lach a savié pears. And codlins, and pippins of different sorts.

Upon the west side facing the east.

The royal peach, and the bourdine, swalfe, hative peaches, and the green-gage, the drapdor, the queen mother, the maitre claudé, and St. Catharine, and figs: the orange and *Turkey* apricot. The persique peach, temple nectarine, and the rambillion peach.

Make espaliers of apples, plums, and pear dwarf trees of divers sorts in any quarter of the garden. You may also have dwarf figs, and dwarf grapes.

Borders for fruit trees should be five feet broad and fifteen inches deep of fresh untried earth, and not mixed with dung of any kind.

Brick-walls are the best for fruit-trees: and the trees ought to be planted thin; spread horizontally, and not to be run up perpendicularly.

Dwarf-trees of all sorts must be kept open, entirely free from wood that is not horizontal; and their height should never exceed five feet. And in order to bring the dwarfs into this form, pinch off all perpendicular shoots in spring. This will cause them to break out into side or horizontal branches, and form the tree desired.

Keep the borders wherein the fruit-trees are planted clean from weeds. Plant no *beans* or *pease*, nor any edging of box near them.

If possible give *A* new planted trees a sufficiency of water in *April, May, June, and July.*

The TIME and MANNER of PLANTING FRUIT-TREES.

They who expect to have healthy trees and fine fruit, must next to their aspects, provide a proper soil for them, and plant fruit-trees at proper seasons.

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whose soil is a sandy loam. Take a sufficient quantity of this mould, after the turf is pared off. Throw the pure earth into a heap, with a third part of very rotten dung. and turn it once a month till *October*, when it will be fit for use. But if your soil be *clayey*, mix drift sand and coal-ashes with this pasture mould : this is most agreeable to the roots of young trees.

Dig the holes for planting trees two feet deep, and so wide, that the roots and fibres may have full room to be spread at full length ; and if it happens to be *clay* dug up carry it away : pave the bottom with tiles or bricks, and fill up the holes with the compost prepared as above, after the roots are well settled. If you find reason to alter this sort of compost, on account of the nature of your soil ; refer to the directions given about *soils* in the beginning of this book.

The earth thus prepared, and if your land be warm and dry, plant your fruit-trees in *October*, *November*, or *December* at latest : but if the land be naturally cold, wet and heavy, don't plant fruit-trees till *February*.

Take care not to plant too deep : the upper roots of fruit trees ought not to lie above seven inches below the surface of the earth. Neither let them be planted too close together.

Plant *May cherries* at eight feet distance ; *peaches* and *nectarines*, at ten feet : if with *wines* between, at twelve feet. *Plums*, *duke cherries*, and *apricots*, at twelve or thirteen feet ; *pears* at fourteen feet ; *apples* on *paradise* stock eight feet : but other sorts should be planted at fifteen feet distance.

Vines are often planted in the intermediate spaces : which soon reach the top, and produce fruit the third or fourth year.

In planting a wall-tree observe that the bud or graft be from the wall : as also the best roots, and that it be placed inclining at the distance of eight or nine inches at bottom, and two or three inches at the extremity of the head.

Prune

Prune off the *tap-roots*, viz. such as are inclinable to grow downwards, and such small, tender fibrous roots, as may have been killed by the wind presently after the tree was planted.

If you intend to plant either *peach*, *nectarine* or *apricot-trees* in autumn, leave their heads on till March, and then cut them off at about six or seven inches above the bud, with the *cut* towards the wall.

Let great care be taken that the roots of your fruit-trees have received no damage from the nursery-men, who too frequently cut and bruise the roots in taking them out of the ground, and break them in packing up.

If the roots be found very dry, lay them (not the tops) in a pond of water for twenty-four hours, before you plant them. If the trees be taken up, and a frost prevents their being transplanted, put them in a cellar, cover them as close as you can from the air, &c. and when the frost shall permit them to be planted, soak their roots in water.

Dwarfs and espaliers are planted at the same distance.

Espaliers and *wall-trees* are planted with an inclination to the *espaliers* and *walls*: but *dwarf* and *standard-trees* must be planted in a true upright.

Dwarf-trees planted in a dry soil, must be planted six inches above the graft: but in a moist soil let it be eight or ten inches.

Never plant a tree of the same species in the place of that which has decayed.

Choose trees of the *first year's graft* or *bud*: such as have but one *stem*, or two at the most, whose *bark* is *smooth*, and free from *canker*, *gal's*, &c. whose yearly shoots appear strong and vigorous, and such as be well rooted.

If obliged to move a tree in *summer*, make a compost of pasture mould as above directed, and an equal quantity of *cow-dung*. Put it all, when well mixed, into a *bearing tub*, and put to it as much water as will make it into *pap*, with the help of an oar (used by brewers to mash.) When the mixture is reduced to that consist-
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ency, as to support the oar from falling, when set upright in it, and a hole of a sufficient breadth and depth has been dug, make a lining of fine dry compost as above; place the roots of the trees to be planted with your hands in an horizontal position: upon which pour the pap, and put fresh mould about the outward parts thereof, till it has caused the pap to rise and mix itself with every root in general, and to show out above the crown of the root, treading it now and then gently, to force it up into the hollow parts of the roots. Then fill up the hole, so as to make a cap about it, which fill up with rotten horse-dung, and in two hours the tree will be fixed.

To preserve the roots of trees new planted, both from cold and heat, lay about the stem of every tree about four inches of rotten horse-dung, clear of *long litter*, &c. lay it in the form of a basin, and cover the dung with mould. This method keeps the root warm in frosty seasons, and receives the water given to it in dry seasons.

When you prune a root to be transplanted, do it with a knife, that cuts smooth and clean. Cut away all dead fibrous roots, and all bruised parts and tap-roots. In doing this, hold the tree in the left hand, with the head behind you; and then the cuts at the end of every root will be downwards, the best position, when planted.

In what kind of EARTH to plant FRUIT-TREES.

Pears, apples, p'ums, and fig-trees require a deep land, that is moderately hot or cold.

A peach budded upon a *peach-stock*, delights in a *hot, dry, light and sandy soil*: but upon a *muscle* or *white pear plum-stone*, it requires a *wet and strong land* when budded upon almonds, it thrives best in dry hot lands.

Almonds raised from their own kernels, love a *light land*:

land but when grafted upon a *plum*, they require a *strong* land.

Quinces thrive best in *strong, wet, heavy* land.

Pears, or *pear-stocks* delight in a *dry soil*; and in a wet strong soil, when grafted on a quince stock.

Cherries prosper most in a good *sandy loam*; and thrive very well in any *light* lands.

Vines produce best in *dry light sands*, as *chalks, sandy, gravelly, rocky, &c.* lands in a warm situation.

To adorn the winter *bonchretien pear* with the fine colours of *yellow* and *carnation*, it must be grafted on a *quince stock*.

RULES for PRUNING FRUIT-TREES.

The *fruit trees* well planted and in proper land will increase in the head as well as the root, and require great judgment, dexterity, and industry, to prevent nature's overgrowing herself and running too much into wood.

To rectify this luxuriancy, and to help nature to cast off the superfluous increase, the gardeners have an art to prune their trees, or to lop off the vicious part of the tree with a knife.

For this operation you ought to be provided with a *proper pruning knife*, which you may have at any cutler's.

The use of it is to follow these directions.

The nearer the branches are laid to the *horizontal position*, the more likely they are to produce fruit.

The branches laid to a *perpendicular* or *upright position*, the more wood you will find.

The middle of fruit-trees, especially *peaches* and *apricots*, must be kept clear of *wood*, or thick branches; always allowing a quantity of wood to remain, to maintain the *strength* and condition of the tree.

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Cut away the branches that grow forward from the wall: and leave the branches of strong and vigorous trees longer than those of weak trees.

Never lay branches across each other, except your reason direct to the contrary.

Weak or decaying trees must be pruned much shorter, than those in perfect health, and the shoots preserved must be fewer in number.

Never preserve above four shoots of the midling wood of a tree of the first year's growth,

When a tree produces stronger branches at bottom than the top, cut away the weak part entirely, and form a new tree with the strong and healthy parts remaining.

Avoid thick nailing: it is best to nail too thin, rather than too thick.

When a dwarf is to be pruned, observe that the bud pruned stands outwards, not inwards, or sideways.

The CULTURE of the PEACH and NECTARINE.

These fruits come to the greatest perfection in this region in a S. and S. E. exposition. But you may have good fruit on a S. W. and a W. wall. As a peach is naturally watery, take care of a wet cold soil.

If a *peach-tree* hastens to bear very soon, disburthen it from its blossoms and prune it to short wood. And when it is vigorous, cut out the large useless wood; nail the remainder at fourteen inches. Choose the middling wood full of swelling double buds. Let this be done in *March*. Cut out all dead wood, autumn shoots, and yellow sapless branches; and cut the shoots to about seven inches in length.

In *May* strip off the superabundant fruit. About *Midsummer* top the shoots with discretion; and nail them to the wall horizontally.

In a hot season make basons at the roots, and give the trees plenty of water.

In pruning of fruit-trees, cut off the shoot, with a slope, at the back thereof, a little above a *leaf-bud*.

The more any tree is pruned, the more it will shoot. And if you desire a fruit-bearing-tree, to produce new wood, rub off the most of the bloom, and prune the roots to half their usual length, and the tree will break out into plenty of wood.

The *nectarine*, as one of the tribe of *peaches*, is to be managed after the same manner. And they both require the best wall.

Of the PEAR-TREE.

All *baking-pears* may be planted against N. E. or N. W. walls. The same aspect does also agree with the *roussellet*, *orange*, *bergamot*, *catherine*, and other summer and autumn pears.

Plant the pear-tree in a deep, rich, sandy, mixed earth or deep loam. And should your soil be cold or wet, prepare the holes, it is to be set in, in the manner as directed for peaches.

If your wall be low, or you intend a pear-tree for the espalier, and your land be wet, choose one grafted on a *quince stock*. This also is a much better stock, than a pear-stock, for the *bonchretien*, when planted in a warm soil.

When you find a young new planted pear-tree (or any other) running into fruitless wood, take it up with care, and immediately plant it in the same place, without pruning, and it will make the tree prosper, and stop its luxuriant growth.

Prune *pear-trees* only in the fall of the leaf. Prune the last year's shoots from nine to eighteen inches in length. Cut off all false branches, which are known by the extraordinary distance of their buds: and lay
no

no more wood in, than the roots may be reasonably supposed capable of supplying with juices.

Always nail the branches *horizontally*: otherwise the trees will soon come to ruin.

Pear-trees have their *bearing buds* in three several states, continually succeeding one another: which must be strictly attended to by the gardener, that prunes. For as few pear-trees produce fruit before they are three years old: so, such shoots as are produced in the first year, are preparing themselves all the second year, to produce fruit in the third.

Now the *blowing buds* of three years old discover themselves at the fall of the leaf, which, whilst the fruit preceding them was growing and ripening, they were preparing to succeed them the ensuing year.

Therefore observe; the *buds* of *three years* growth are very full, larger than the others, and seeming prepared to break out into bloom.—The *buds* of *two years* grow very near to the fruitful buds; but are of a red-russet colour, and made like a sharp cone.—The *junior bud* of *one year* is very small; but full above the bark, and always appears near to that of two years growth.—Besides there is another wonderful work of nature, which is the preparation of smaller buds, continually forming themselves within the bark, to succeed those their next seniors, of one year's growth, and so on, as long as the tree lives.

Prune luxuriant trees very late; and cut away one of the largest roots, especially a *tap root*.

In *May* begin the *summer-pruning*. Cut off forward and luxuriant branches to an inch and half, or two inches from the place they shoot from.

The *summer bonchretien* must always be pruned in *May*, and its shoots nailed at full length. because the fruit hangs at the extremity of its branches. And both this and the *winter bonchretien* require a high wall and a warm soil: for when confined by pruning, these trees grow full of knots, and produce but little fruit.

In

In *May* also pinch off the tops of perpendicular luxuriant branches, within half an inch from whence they shoot, of those *espalier* and *dwarf-pears* as had been planted at the fall of the leaf: and it will cause others to break out, that will be good wood.

At this time you may, according to the observations made above, discern what buds will be serviceable in filling up empty places, or for fruit: and all others should be displaced.

Note. You should be always provided with a mixture of *rosin*, *mutton suet*, and *bees-wax*, made into a plaster, to cover any large wounds made with the knife, as soon as the branch is cut off.

In *July* examine your pear-trees; and if found too vigorous, cut off the forward shoots close, and nail in all branches, that lie flush with the wall.

Suffer no suckers at the roots of the trees.

In *March* prune *young pear-trees*, with discretion. Don't take all away: but don't take too little from them. And now is the season to check luxuriant trees by *plashing* or by cutting a little more than half through the luxurious part near to whence it shot. This will check its growth, and dispose the tree the sooner to bear fruit; yet remember, that this practice of *plashing* is not to be used in standard-trees; because the winds would break off the limb.

Of the APRICOT.

Apricots will do very well on S. E. and S. W. and on E. and W. walls: but they like a south exposition best.

After the tree has been planted, as directed for the *peach*, prune and nail it also in the same manner. Clear it of suckers and weeds, blighted branches, insects, &c. and thin the fruit with discretion in *May*. When fully grown expose the fruit to the sun: at the same time make a basin about the root, and give it water plentifully, if the season proves to be hot.

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Never *plafh* an apricot-tree, but in the month of May.

In *March* prune all young planted trees of one year's shoot, so as not to leave too much wood. Don't lay the branches over long: neither prune them too short.

Of the PLUM.

Plums do thrive very well either on dwarfs, espaliers, or standard-trees: but there are many *good sorts*, such as the *perdigon*, *greengage*, &c. nay all in general, that are greatly improved upon a good wall.

Plant *plum-trees* in good land, that inclines to strong and wet: and they will succeed very well either against an E. W. or N. E. and N. W. walls. And the fruit laid in nettles a day or two after gathered will eat much finer.

Prune these trees, if vigorous and luxuriant, very late in *January* or *February*; and in the same manner as a *pear*.

In the spring, nail up all useful branches, and clear the roots from suckers, weeds, &c.

In *July* pick off as many leaves, as shall let in the sun to the fruit, by degrees, and the *plums* will thereby gain their natural colour and taste.

Of APPLES.

There is an extraordinary quality in *apples*: they will grow almost in any soil: but we must expect the best both in quantity and quality in good land, or *fresh strong loam*.

If you would have early bearing trees: choose such as are grafted on paradise stocks: they will bear the second or third year. These are the properest for dwarfs or low espaliers; or to be planted in garden-

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pots and tubs. The *standards* are grafted on crab-stocks.

The *codlin-apple* is increased from *suckers* taken from its root in the beginning of *November*; or, by *cuttings* in *March*, planted under a north wall.

Plant this fruit in *October*, when the leaves are just fallen.

An *apple-tree* will grow cankered, and die, if cut with a knife in winter. So that it is adviseable to rub or pinch off all luxuriant branches carefully in *May* and *June*. Which will make the fruit both larger and finer to the eye and taste.

If you sow the kernels of apples saved from a seedling without grafting, the fruit is often as good and sometimes better than the *mother-fruit*.

Of CHERRIES.

All *cherries* are propagated from the black cherry, and delight in a light, rich loam. The *May-duke*, *Kolman's duke*, and the *lukeward* deserve a place against the best wall. The *morella* does best against a north wall, and produces a rich and noble fruit, when left hanging on the tree till the end of *August*: all other sorts will do well in *standards*, *dwarfs*, and *espaliers*.

N. B. The *duke-cherries*, if covered when in bloom to save them from cold winds in spring, will produce well on N. E. N. W. and N. walls.

If these trees prove too luxuriant, prune them in *October*, or early in *November*. At the same time cut off the weak branches and the ends of leading shoots, which you may shorten to eight or nine inches: except the *morella*, and the *early May cherry*, which producing their fruit at the ends of their shoots, they must not be topped in pruning.

When a *cherry-tree* takes to bear very early, and grows but little, pull off most of the bloom, and shorten its branches; which will give the tree fresh vigour.

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When it is *bark-bound*, stand on the side of the tree, and with the point of a sharp knife slit open the bark of the body, and of its large branches from top to bottom.

You must examine the tops of the branches and all the leaves for vermin, especially the black fly, and destroy them: and clear the root from weeds and suckers.

Of GOOSEBERRIES.

Gooseberries take their name from their use amongst our predecessors, who were fond of them for sauce to *green geese*.

This fruit will thrive in any soil, wherein *apples*, *pears*, or *cherries*, do grow: and will live under their shade.

Their situation is generally in the borders of a *fruit garden*, or the *kitchen garden*; are increased either by ripe seeds of the berry, or by *suckers*, or *cuttings* taken from such shoots, as produce the most fruit, and let them be seven or eight inches long, at least; plant them in a strong soil, open to the morning sun in summer; rub off all under shoots; train up the strongest and uppermost upright.—They may be removed any time in *September* and *October*: and the fruit might be greatly improved by cutting away all the middle branches, and not suffering branches to run across each other. Always keep the bushes clear of *old wood*. Transplant them in well-dug earth, trimming the roots, and cut away side branches. Dig round them in spring, and every other year throw a little rotten dung round them.

CURRANTS.

Currants delight in the same land as *gooseberries*: and require the like cultivation. But if you strive to gain the most beautiful and pleasant tasted currants,

plant the *white* and *red Dutch currants* against a full *south wall*, and keep the wood very thin.

Of RASPBERRIES.

Raspberries love a good strong rich land. They are generally increased from *suckers*, or *runners*, planted in *November* in single rows, three feet and a half distant each row from the other, and at one foot or fourteen inches asunder in the rows. Horse-dung well rotted agrees well with this fruit: but sea-coal ashes will destroy the *raspberries*.

The *suckers* or *runners* are to be of one year's growth: and in planting, prune off the very small fibrous roots, leaving the large roots to five or six inches in length, and the top ten inches or one foot. And also be sure to leave the *leading bud*, at the upper part of the root; because it is to produce wood for the next year.

These plants will produce shoots about two feet and a half high, with fruit at the extreme parts, in *autumn*: but prevent that by topping them, as soon as the bloom appears. This will cause them to shoot next year with greater vigour: and the third year greater than the second, &c. if you take care to destroy the *suckers*, and weeds, especially the *bearvine* and *couchgrass*.

Every year's wood dies after the fruit is produced; and must be broken out in frosty weather. This makes way for the succeeding shoots, which in *March* must be *lopped*; cutting off all the upper part, that appears weak.

Of STRAWBERRIES.

The *scarlet strawberry* is a great bearer, and an excellent fruit. Plant it about the end of *August*, or soon after (without dung, in a moist, fresh, mellow land :) and water it well, when in bloom.

Plant

Plant *scarlet strawberries* in rows one foot apart, and about sixteen inches between plant and plant in each row.

String them carefully all summer, and dig between them in winter. For by keeping them in single roots, they will for four or five years produce very fine fruit, and earlier by a fortnight, than such as are permitted to run thick in the bed.

The *hautboy* requires to be planted in land richly dunged: but in every other part of its management and culture, you must proceed as directed for the *scarlet strawberry*.

The *wood strawberry* also delights in a very rich land; and are planted in beds at the distance of about eight inches from plant to plant, and are permitted to run together in their beds all in a mat: but the alleys between them must be digged in winter. This plantation thrives best from *runners* gathered in the woods; for such as are gathered from old planted strawberries of the garden, soon degenerate.

From the premises, you are to observe, that strawberries in general do not love rich land equally: and that the preparation of soil, that will suit one kind, will destroy or ruin another.

All sorts of *strawberries* require much water whilst they are in bloom; and during the ripening of the fruit. But always do this work carefully and very easily.

If you would have strawberries in *March*, take plants of three years growth, and having planted them in a garden-pot and placed it in a gentle hot-bed about the middle of *January*, they will yield fruit in *March*: provided that they are not overheated, so as to be destroyed by the steam: they must be watered with warm water when in bloom, and not stifled for want of air, and yet secured from *frost*, *cold winds*, &c.

Of BARBERRIES.

The *barberries* without stones are esteemed the best. They thrive best in a good mellow loam. The plants are increased by *suckers* or *layers*.

Of WALNUTS, CHESTNUTS, FILBERDS, and HAZEL-NUTS.

All *walnuts* are cultivated in one and the same manner. Make choice of such nuts for planting, as are esteemed for the goodness of *kernels* and *thinness* of *shell*. Gather them when observed to fall from the *mother-tree*. Lay them in a dry place till the green husks crack: then peel off the husks, and let them lie so as to receive no wet, and turn them every day, till the shells appear quite dried. Then deposit them in a bed of moist sand under such cover, that no wet can come at them.

About the middle of *January*, in open weather, moisten the sand moderately. And about the middle of *February* plant them at six inches the square distance, and three inches deep, in good fresh land, that is not hot and dry.

I have at this time a very fine walnut-tree, that rose from a nut bought at market, ready shelled, and planted in black mould in the month of *August* without any sort of preparation. And I have known fine plants spring from nuts dropped off the tree.

Let the plants remain in the seed-bed two years, during which time keep them clean from weeds, and water them moderately in very dry seasons.

At the end of two years take up the seedlings: prune off the tap or downright roots, and side branches, taking particular care not to touch the *leading shoot*. Then plant them in the nursery at eighteen inches asunder in the rows, and three feet between the rows; keeping them clear from weeds, and digged in winter.

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A tree five or six feet high will bear much sooner, if then *inoculated* with any sort.

When you plant a walnut-tree, prune the end of every root; cut away all that grows downwards; place every root, as near as possible, in an *horizontal position*, and as shallow as conveniently may be; and prune off all side branches, but never top the leading shoots on the head. Besides, *walnut-trees* must be planted with all possible expedition after taking up; and in the mean time preserve their roots from *wind, sun, and air*, otherwise they will grow *mouldy and die*.

According to the best practitioners in gardening the proper season for planting the walnut is *October*, in a very deep soil of a dry rich nature, on a gravelly bottom. It will also thrive on a gravel mixed with loam, or on clay naturally mixed with stones or chalk: but never succeeds on shallow land or stiff clay.

Chestnuts are sown, transplanted, managed, pruned, and reared in the same manner as *walnuts*. The *chestnut-tree* delights in the same soil.

Some have raised *chestnut-trees* from layers, or side branches near the bottom laid in the ground; but this method seldom produces good trees.

Filberts and *hazel* are raised as above from nuts; or they succeed very well by *suckers* or *layers*. They will grow in wet land: but best in dry ground: the red *filbert* is the most delicate nut.

They may be sown any time between the 10th of *August* and the first of *January*. But I apprehend the sooner the better, after the nut is perfectly ripe.

Of QUINCES.

Quinces are raised from *layers, suckers, and cuttings*: but it is best, or produces sooner when grafted, and loves a moist soil. The cuttings must be taken from an old bearing tree: and the season for planting this fruit-tree is *October, November, December, &c.* as for other fruit-trees.

Of the MULBERRY.

The *black mulberry* is a most rich fruit, a great bearer: but of a very slow growth. This sort delights in good mellow land, and is best increased by layers, if laid upon stools, in *March*, as directed in the nursery, and remain upon the mother plant for two years after laying. Cut the layers off, and plant them at the fall of the leaf, and well mulch them with horse-dung afterwards, to preserve them from winter frosts.

In the first year place a stake perpendicular by its side, and tie the plant thereunto with *bass mat*, &c. to keep it upright.

In like manner *cuttings* of the *mulberry-tree*, if put into the ground in *March*, in two years time will make good plants: provided that the cuttings for this purpose be two feet at least in length; be placed sloping in the ground; not deeper than one foot at most, and there be left no more than two buds out of the ground.

Of the FIG-TREE.

There are divers sorts of this delicious fruit: and though a native of *Barbary*, on the coast of *Africa*, succeeds greatly in our island when rightly managed, as hereafter directed.

It is propagated by seeds sown in a rubbishy soil in *March*, also by suckers. But the best method is by layers in *February*; and transplant them in *February* next, in a soil that has a chalky, gravelly, or stony bottom, and a light, dry surface, and a free, open situation. Most sorts require a good south wall, or a south-east or south-west. If the wall be fourteen feet high, or upwards, plant them at twenty feet distance; and between each might be planted a vine, which should be gradually cut away as the figs cover the wall. They should be planted without cutting
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off their heads, and they do not love much pruning. Some choose to prune them never but in *July*, others choose to do it the end of *March*; and, through the summer, not to let them be too closely fastened to the wall. But this seems to be the best method; when they begin to shoot in summer, train in the branches horizontally, and always rub off the buds of all fore-right shoots as they appear; at *Michaelmas* prune and nail. In older trees take care to have a supply of young branches in every part; but never shorten any shoots in autumn, but nail the young branches close to the wall, and never lay in the old branches thicker than ten or twelve inches; and, as the young branches increase, the old should be entirely cut out in autumn. To produce young branches, stop the ends of young, vigorous shoots in *April*, or the beginning of *May*; but do not this too often. Some recommend to have two crops in a year, by stopping the shoots when six or seven inches long, and so continue all summer. If the winter proves severe, unnailed the choicest sorts, and cover them with straw; and don't remove the same too early in spring, nor then all at once; but do it gradually, opening them in the day, and covering them in the night. The higher the trees, the better tasted will be the fruit, therefore they should have a high wall; though some say the branches should not grow too high. If you plant them as standards, let them have an open situation; and they require only to have the dead and decayed branches to be cut out, with those which cross each other, so as to keep the middle of the tree free and open; this should be done in *October*, when the leaves begin to decay; and divest the branches of all the latter crops of figs, Cut off all branches round, close, and smooth.

General OBSERVATIONS for the FRUIT GARDEN.

Cherries may be brought to ripen in *December*, by pulling off all the blossoms from a tree as soon as they bud in the spring, and keep the tree from rain through the summer; the end of *July*, or in *August*, give it gentle waterings by little and little: and, by the end of *September*, it will be in full blossom; then cover them with glasses; and, the end of *October*, if it be cold weather, apply some hot dung to the back of the pales, and renew the same in the manner directed for the forcing-frames.

Currants will remain good till *October*, if you will mat the bushes round as soon as the fruit begins to be coloured; take care to put on the mats when the trees are quite dry.

Fruit trees should be prevented from striking into a bad soil, by tiles and bricks laid at the bottom, to cause their roots to spread horizontally.

Trees too luxuriant should have their roots uncovered in *January*, and some of their large roots cut off.

A golden-pippen placed against a west wall will cause the fruit to grow surprizingly large, and yet retain its usual flavour.

A young tree too luxuriant may be brought to bear by cutting the most vigorous shoots two third-parts through, in a large notch, so as they may not heat too soon; by which means, also, perpendicular shoots may be made to fill the wall, by drawing them down where branches are wanted. This should be done in the spring; and, if you do it in winter, put a little cow-dung to the wound.

HORIZONTAL SHELTERS are by many esteemed very beneficial towards the ripening of fruit; and are generally made in *March*, by placing rows of tiles in the

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the structure of the wall, at certain distances, one above another, jetting forwards and hanging over the plane of the wall an inch and a half; place them betwixt every second or third row of bricks, leaving void places for the wood-branches to pass through, wider at the bottom than towards the top of the wall; lay them a little shelving. Thin bits of board will also do fastened to the wall in the like order. These shelters are chiefly for peaches, nectarines, grapes, and figs. But it is thought to be better to have only two leaves of slit-deal, joined over each other and painted; then fixed to the top of the walls, and with pulleys may either be drawn up or let down at pleasure. They may be let down in great rains, or cold nights, whilst the trees are in flower, or the fruit setting, but take them away soon after the fruit is set.





T H E V I N E Y A R D.

WE are come to the knowledge of the following sorts of *vines*, viz. *the claret*, *July*, *currant*, *parsley-leaved*, this should be pruned short, and left but thin of wood; the *miller's grape*, or *Burgundy*, this is an excellent bearer, and a hardy sort; *black morillon*, makes good wine; *royal muscadine*, *black muscadine*, this should have a good situation; *red muscadine*, *burdelais*, or *burlake*, this never ripens in *England*, and is only fit for tarts; *muscat*, or *white Frontiniac*, after the grapes are formed, with a pair of scissars, cut out all the small ones, and leave the others at a proper distance; *red Frontiniac*, this is the richest grape yet known, and must have a dry soil and a S. E. wall; *black Frontiniac*, *damask*, *sweet water*, *black sweet water*, *white muscadine*, *raisin*, the branches of this in *October*, should be cut off with pretty long stalks to them, and hang them in rows in the kitchen till *Christmas*, but let them not touch each other; *Greek* or *brick*, this must have a good wall, and will make excellent wine; *pearl*, *St. Peter's* or *hesperian*, *Malmsey*, *Malmsey muscadine*, *red Hamburgh*, *black Hamburgh* or *Warner*, *Switzerland*, this is only for curiosity; *white Frontiniac of Alexandria*, this should have a hot

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hot wall, and is an excellent grape ; *red Frontinac* of *Alexandria*, *white melie*, this makes an excellent white wine, and in good seasons, will ripen on espaliers ; *white morillon*, should have a good wall ; *Alicant*, this must have a hot wall ; *white Auvernal*, makes an excellent white wine ; *grey Auvernal*, will ripen in vineyards ; *raisin muscat*, must have a hot wall ; *Arbois*, or *French sweet water* ; and *Chiante*.

Their culture is by *layers*, either when the fruit is ripe, or in *March* or *April*. and may be transplanted at *Michaelmas*, or in *November* or *December*.

Draw a young shoot through the bottom of a garden-pot, leaving a sufficient number of *eyes* above the brim ; then fill it up with earth, which at *Michaelmas* may be taken off, and they will hold their fruit good almost to *Christmas*, if sheltered in a green-house.

But the best way is by *cuttings*, after the fruit is ripe ; from the last year's shoots, which are strong ; let them be about sixteen inches long, with a knot of the former year's wood cut smooth ; then place them in a dry place, with their lower parts in the ground slanting, and lay some litter about their upper parts : the beginning of *April*, cleanse them ; and if they are very dry, put their lower parts in water for eight hours, and then plant them : they should not be removed again.

In a strong, wet soil, open a trench against a wall, and fill it with lime-rubbish ; and raise the border with fresh earth, a foot thick, and six inches above the level ; then plant the *cuttings* six feet distant, the uppermost eye level with the surface, and raise a little hill just on the top to cover the upper eye quite over.

When they put out, rub off all dangling shoots, and fasten the main shoot to the wall as it extends. During the summer, rub off all lateral shoots as they are produced ; and, at *Michaelmas*, prune the strong shoots down to two eyes.

Next

Next spring, after the cold weather is past, gently dig up the borders, and raise the earth up the stems, to cover the old wood ; and when they begin to shoot, leave no more than the two shoots produced from the two eyes, and fasten them to the wall 'till the vine has done shooting.

In the middle of *July*, nip off their tops. Let no sort of plants grow near them.

At *Michaelmas*, prune these shoots, if strong, to three eyes, otherwise two ; and fasten them horizontally to the wall.

The next spring, dig the ground gently again, without hurting the roots ; and continue, through the season, to rub off all dangling, weak shoots, and train up the leading shoots.

If they put out more than one shoot from an eye, rub off the weakest ; and, if they produce any fruit, at *Midsummer*, pinch off the tops of such shoots.

Lay in young wood equally in every part, fruit being always produced from shoots issuing from buds of the last year's wood.

When you prune, shorten the branches of the last year's growth to three or four eyes ; and leave the bearing shoots four eyes in length, and lay in the shoots to the wall eighteen inches asunder. Prune just above an eye, sloping it backwards from it ; the best season for it is the end of *September* and the beginning of *October*. When there is an opportunity to cut down some young shoots to two eyes, to produce vigorous shoots, it should be done.

The end of *May*, prune the bearing shoots to three eyes above the fruit. But those, which are for bearing next year, should be constantly trained upright against the wall 'till the beginning of *July*, and then nip off their tops.

Never divest branches of their leaves. After the fruit is all gathered prune the vines.

O, VINES against Hot-Walls.

Make a trench, two feet deep in wet, and three feet deep in dry ground, to extend five feet from

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from the wall ; and raise a nine inch wall on the outside, to the height of the border, which, in wet ground, should be a foot above the level ; leave little openings in the wall, at eight feet distance, for the water to pass off ; then put in some lime rubbish, stones, &c. beat in pretty hard, a foot and a half thick ; then raise the borders up with fresh light earth.

A month or six weeks after, in the end of *March* or beginning of *April*, plant the vines : put two cuttings in each hole ; and, if both succeed, the next spring draw out the weakest ; let the distance be six feet, and lay a little mulch round them ; and, if the spring proves very dry, give a little water once a week.

The first three years management is the same as against common walls ; only encourage them as much as possible, and not leave the shoots too long, nor too many on each vine.

The fourth year you may begin to force them. The same vines should not be forced oftener than every other, or every third year ; about forty feet in length of the wall may be forced by one fire.

Plant these walls with the best kinds. The summer they are not forced, lay in store of good wood against the time they are next to be forced ; and divest these vines of their fruit where produced, to encourage the wood ; except the common *Frontinac*, which, in a good season, will ripen without artificial heat, but let them not have too many bunches. Those to be forced should be pruned early in *autumn* before, and at the same time fasten the shoots to the trellace. The chief care is to encourage the fruit, by being very short pruned ; and no branches need be shortened for young wood.

The middle or the end of *Jaunary*, light the fires, and place before them your glasses or frames of oiled paper. The fire need not be very strong, nor continued in the day, unless the weather is very cold, and the sun not shining. In walls rightly made, a moderate

rate fire will be sufficient, if made every evening, and continued 'till eleven o'clock at night ; and about the tenth of *May*, unless the spring be very cold, the fires may be left off.

When the grapes are formed, stop the shoots at the second joint beyond the fruit, and leave no useless wood. As the weather grows warmer, give every day a proportionable share of air, and keep the frames close over them every night, unless in very hot weather. The bunches should not be much handled ; yet some sorts require, soon after they are set, to have the small ones cut out with a pair of scissars.

The beginning of *July*, the glasses may be kept entirely off, unless very wet weather, but then open them at all opportunities,

When they begin to ripen, guard them from birds and wasps. In *October*, if the weather be very wet and cold, make a small fire every night ; by which you may continue the grapes on the vines 'till the end of *November*. Temper the heat of the fires, and proportion the quantity of air, according to the warmth of the season.

VINES *against Espaliers*] The soil should have a chalky or gravelly bottom, covered over eighteen inches deep with a light, hazel mould ; the top made a little sloping to the south or south-east ; the back-side defended by reed hedges, or thin deal boards ; and the bearing shoots should be trained a foot above ground. These fences need not be made 'till the vines are four years old.

Hang mats before them, when the weather is cold in autumn. The sweet-water should be covered in spring in cold nights, when in flower. If you have more rows than one, place them twelve feet asunder, and prune them as directed for vineyards.

If *rooted vines* are sent from a remote place, they should have wet moss wrapped round them. The soil for vines cannot well be too dry ; and some advise the soil to be composed of two parts of the rubbish of

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To Plant a VINEYARD in the best Manner.

The soil, the same as for espaliers. The situation, if possible, on the north side of a river; on an elevation inclining to the south, with a small gradual descent; the country about open and hilly; always open to the east, and, if possible, sheltered from the S. W. N. W. and N. winds.

In the spring, plough the spot up as deep as the soil will permit, and then well harrow it; do this several times within the year. Then, the next *March*, plough it again, and make the surface even.

Some persons choose to plant rooted vines in rows, four or five feet square, in open weather in *February*; which they prune, the *September* before, to four buds on their strongest branches; and, the end of *September* after planting, shorten the shoots of that summer according to their strength. But the best method is this; mark out the rows, ten feet distant, from the S. E. to the N. W. then cross them at right angles, at five or six feet distance; and, in each place, plant a cutting of the *Auvernal*, or true *Burgundy*, the beginning of *April*, procured from such vineyards abroad where no other sorts are cultivated. When they begin to shoot, place a small stick to each, to which the shoots are to be fastened. At *Michaelmas*, prune all shoots to two eyes, and draw up the earth in a little hill round each plant.

The beginning of next *March*, dig the ground well between them, but hurt not the roots, and make little hills round them. The beginning of *May*, place a stake on each side of every vine; and if two new shoots are produced, fasten them to the stakes; and constantly displace all weak, dangling shoots. At *Michaelmas*, prune them in this manner; those which have

have produced two strong shoots, shorten to three eyes each; such as have only one strong and one weak one, shorten the strong to three and the weak one to two eyes.

The beginning of next *March*, dig the ground as before; and place down two stakes by the sides of all such as have two shoots, and draw the shoots to the stakes, so as to form an angle of forty-five degrees with the stem. In *May*, displace all weak, dangling shoots, and fasten those produced from strong eyes to the stakes; and repeat the same every three weeks to the end of *July*. At *Michaelmas*, if the two shoots of the former year, shortened to three eyes, have each produced two strong shoots, shorten the uppermost of each to three eyes, never including the lower eye, and the lower shoots to two good eyes each: where they have produced but two or three shoots, leave one with three eyes, and shorten the others to two, which if weak, to one good eye.

Next *March*, dig the ground as before; and, where small *horizontal* roots are produced on or near the surface, prune them off close; also, on each side of the vine, place a stick sixteen inches from the root, to which the two branches pruned to three eyes should be fastened; and place another taller stick at the foot of the vine, to which the shoots shortened to two eyes should be fastened, if strong enough; if not, when their eyes begin to shoot, these shoots should be trained up. In *May*, rub off all weak shoots as produced; and those which show fruit fasten to the stakes 'till they extend three joints beyond the fruit, and then stop them. The shoots for bearing next year are to be trained upright to the middle stake; continue this from the beginning of *May*, every three weeks, to the end of *July*.

When the fruit is ripe, cut the stalks of the branches half way thro', a fortnight before the gathering them; and then hang them on strings, in a dry room, for a month, not letting them touch each other: afterwards press them. The wine is not so good whilst

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the *vines* are young as when ten years old, and then will constantly mend for forty years.

Keep the ground clean, and let no plants grow on the spot ; and every third year add some manure, and carefully dig the ground between the vines every year. If the land be stiff, add some sea-coal ashes, sea or drift sand : if loose and dry, spread some lime thin over the surface, and let it be equally dug in.

The summer dressings of the *vines* is performed only with the *finger* and *thumb*. Shoots for bearing the next year should be left above five feet long, and stopped the beginning of *July*. In *summer*, when the *vines* are in perfection, there should be six upright shoots for bearing the next year, besides three or four with fruit upon them.

For variety. you may add five sorts ; viz. *wild Virginian*, *fox*, *blotched-leaved*, *striped*, *Virginian* or *common creeper*, by layers in spring ; and, the next spring transplant them against a warm wall.

The pruning and management is the same as the others, only they should have fewer shoots, and those shortened down very low. The *striped-leaved* sorts should have a warmer situation. The last sort should be planted against high walls and buildings.

Cut out all weak shoots in *March*, and shorten the strong ones to ten feet. They will grow from cuttings in spring, in a shady border ; water them in dry weather, and the next spring transplant to remain.



T H E S H R U B B E R Y.

BOTH the *kitchen garden* and the *fruit garden* receive an addition of beauty from the proper disposition that may be made of *evergreens* or *flowering shrubs*. Therefore it will be necessary to inquire into the manner of disposing and planting those shrubs, and to give the seasons, or times in which they begin and continue in blossom.

The first blowing shrub is the *mezerion*, which presents its beautiful blossoms about the last week in *January*, and continues in bloom about six weeks.

The *furze* opens her golden-coloured bloom in *February*, and continues till *October*.

The *arbor Judæ* blooms in *March* and *April*, and holds till the month of *May*.

In *May* the air is perfumed with the bloom of the *lilac*, *syringa*, *gilder rose* and *laburnum*, which continue about six weeks; and the *honeysuckles* of divers sorts, which blow their flowers till *September*.

In *June* the *white jessamines*, and they continue blowing till *September*; and the *Spanish broom*, that continues till *August*.

In *July* the *tulip-tree* blows till *August*.

In *August* the *althæa frutex* adorns the shrubbery till the month of *September*.

The *sennas* blow twice a year, *viz.* *spring* and *autumn*: and are succeeded by the beautiful *laurustinus*, which pleases the eye till *March*.

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Of the DISPOSING and PLANTING of FLOWERING SHRUBS.

We are not only to know the seasons, but to consult the most proper manner how to dispose and plant those shrubs. And in this direction we are to take in the nature of their growth in respect to stature, and also the great variety of colours, which ought so to be intermixed, as for every flower to be an opposite or ground to throw forward the beauty of the other.

As to the height of these plants, we shall first consider those of the tallest growth: then those of the middling growth, and after all those of the lowest growth.

The tallest shrubs are the double blossom peach and cherry, the lilac, gilder rose, Spanish broom, laburnum, mirabalon plum, tulip-tree, white rose and almond.

The middling growth are the syringa, damask, and musk roses, the spira frutex, the arbor Judæ, the senecio, the althea frutex, the monthly rose, and the double blossom sweet briar.

The shortest are the mezerion, the furze, the red rose, the province rose, the cabbage rose, the mundy rose, the cinamon rose, the yellow rose, the American lilac.

Now, in the first or tallest class here set off, we find no less than five sorts of white colours, two yellows, one blue, one mixed colour, and one peach colour.

To plant these to advantage, they ought to stand quite back, so as to give room for others to stand before them, in such a manner as to form a perfect slope of beautiful flowers, by the difference of their several growths.

Therefore, plant the double blossom peach or cherry first, and the almond tree, second; the mirabalon plum, third; the blue lilac, fourth; the gilder rose, fifth; the Spanish broom, sixth; the white lilac, seventh; the laburnum, eighth; the white rose, ninth; the tulip-

tulip-tree, tenth. Which order may be repeated according to the number of your shrubs.

Then proceed and place the shrubs of middling growth immediately before the tallest, always remembering to dispose of them in such a manner, that you never place a *flower-shrub*, that is white or yellow, or *red*, &c. before a plant of the first class, that is of the same colour, or kind: but pursue the order of nature as near as possible.

In like manner dispose of the flowering shrubs in the third or lowermost class,

It will add greatly to the beauty and pleasure of the whole to mix sweet brier judiciously with the other shrubs: and to suffer jessamines and honeysuckles to fill up intermediate spaces between standard-trees, planted in the hedge lines of walks, and to cover the hedges in a wild and rural manner.



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In JANUARY.

PLANTS kept under cover always require air, when the weather will permit: therefore take all advantages of the weather in this month for the *green-house plants*. Open the windows in mild weather about ten, and shut them again at two, or sooner if there should be any alteration in the weather for the worse. But should it set in for a hard frost, you can't keep the green-house too warm or too well shut up, both door and windows.

Place the tender plants as far back as possible, when severe weather threatens their ruin.

Let nothing perish, that can't live without a little water: this must be done with discretion in a mild sun-shine day. Fogs and rain are hurtful to the green-house plants. Shut up close on such occasions.

In FEBRUARY.

Give air as directed in *January*. Water when and where needful. Keep all the stock clear of weeds,
and

and decayed leaves : and it will be a great advantage to the plants in general to loosen the earth in the top and sides of the pots, &c. to take a little off, and to add some fresh compost in its stead. But if it be found that any of them are very sickly and weak, shift them into new earth, in this manner : take the plant out by the root : shake off all the mould ; cut away all decayed and mouldy roots ; wash the remaining root in water, and re-plant it in fresh earth, taking care not to set it too deep in the pot, or tub. Then, if there be the conveniency, plunge the pot into a bed of tan or dung, which will make the plant shoot sooner, and more vigorously, both at top and bottom.

This is the season to reduce oranges, lemons and myrtles into a regular form. The head of any of these plants may be cut close : by which means new shoots will break forth of the old wood, and form the head required. And when this shall be the case, it also will be proper to shift those plants, when cut down, in this manner : take the plant or tree up with the ball entire : pare off all the matted roots, round the outside of the ball ; then pull off a good deal of the old earth from the bottom and sides of the ball ; put a sufficient quantity of compost into the bottom of the pot or tub ; fix the tree upon, or in that fresh compost ; fill it up with fresh earth, and give a little water to settle the mould round the root.

IN MARCH.

As the weather grows milder, you may venture to increase the quantity of air : but guard diligently against sharp winds and very cold air, and never suffer the windows to be open at nights.

Plants of the woody kind require now frequent watering. But there must be more circumspection in regard to the watering of other plants, which, when dry, must be watered, but with moderation ; and never give too much at a time.

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Remember to clear away decayed leaves: and take a sponge dipped in water, with which clean the orange and lemon trees one by one, where you find them dirty, mouldy, or even dusty.

Cut down such oranges and lemons as are decayed, or want to be brought into a regular form, as directed in *February*: and cut out all dead wood at the same time.

Treat *myrtles* in the same manner: and in five months they will be furnished with new heads; if supplied discretionally with water.

You may now earth up, or shift any of the *green-house-plants*, that want larger pots; in the manner directed last month.

Now is the time nursery men sow *exotic-tree seeds* in pots of fine light earth, plunged into a hot-bed of tan or hot dung, covered with a frame and glasses. Cover the seeds lightly with sifted earth, sprinkle them frequently with water. Keep up the heat; yet when the plants appear, raise the glasses a little to give them fresh air.

Particularly, sow the *winter cherry*, in small pots of rich earth, upon the surface, and cover the seed (one in a pot) with a third of an inch of light earth. Plunge the pots to the rim in a moderate hot-bed, and water them frequently. Transplant the *winter cherries* at three inches high into larger pots. But these pots must also be plunged into a gentle hot-bed, 'till the weather will admit them to stand abroad, in the open air. Then put these plants into large pots of good earth, and they will look very handsome 'till *October*, when they require to be shut up in the green-house.

Sow the kernels of *lemons* and *oranges* for stocks. Let them be covered half an inch with good earth in middle sized pots. Place the pots in a hot-bed; and water them as you see needful.

IN APRIL.

The *Green-house* plants begin now to shoot freely: and therefore require more air, to prepare them for being exposed without doors in summer. So that in this month, and mild calm weather, open the green-house windows about seven in the morning, and keep them open till six at night.

You must now look sharp after weeds: no such, nor any filth, or decayed leaves, must be suffered to grow or remain about the plants. You must also water the plants with discretion, continually looking, &c. where the pots are dry.

If it has not been done before, refresh those plants with new and rich compost, which require new moulding, and are not to be transplanted: and shift *orange, lemon, citron, myrtle*, and other trees into larger pots, if necessary, as directed in *February*.

Clean the leaves with a sponge, as has been directed: and cut down myrtles, and any hardy green-house plants, to make an handsome head, in the manner as before directed. If they are not shifted at the same time into other pots, &c. wash the head and stem, so as to clear them from all filth; and earth up the pots, with fresh compost; and water them well.

It is the proper business of the green-house in this month to inarch *exotic plants*. But this is seldom or ever practised on *orange, lemon, citron*, and many other sorts of trees: because we raise the best and handsomest from seed. Yet a man of curiosity may in the space of five months raise a new tree with fruit on it, if he will now inarch a branch of an *orange*, or *lemon-tree*, that has young fruit on it, on one of the common stocks: for it will be so well united by the end of *August*, or beginning of *September*, as to be separated from the mother plant.

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In MAY.

If any *green-house plants* require now to be shifted into longer pots &c. let it be done as early in this month as possible, in the manner already set forth. And such pots, &c. as were not new moulded in *April*, ought to be done now.

Open the windows and doors of the *green-house* to let the air in to its full extent : and if it proves still and warm weather, let them remain open all night towards the middle of the month.

Supply them with a sufficient quantity of water : which now will be required more frequently ; *viz.* tubs and large pots twice a week ; small pots every other day ; except the succulent plants, which must be watered very moderately.

Such *green-house plants*, as are propagated by *layers*, (such as *myrtles*, *jessamines*, *pomegranates*, *oleanders*, and many others of the shrubby kinds,) may be laid in this month, after this manner : bring down a pliable bottom shoot, lay it about two inches deep in the earth ; peg it down with wood-hooks ; cover it up quite to the surface, and leave about four inches at least of the top out of the earth. Refresh it with gentle watering : and if it proves drouthy cover the top of the pot with the mowings of short grass, or a little mulch.

Towards the end of this month, if not windy, and the air happens to be warm or temperate, begin to bring some of the most hardy plants out into the open air.

Suffer no decayed leaves or rotten wood to abide in the plants. They must be cut or picked off, and cleared away.

In JUNE.

Finish the bringing of the *green-house plants* into the open air. Clean them from all dead or decayed leaves,

leaves, dead wood, and broken branches. New earth such pots as may require it : and water the head of the plants all over, to wash off the dust.

Water *orange* and *lemon-trees* every other day, in a dry season.

Take off such blossoms as shall be found necessary to help the fruit. For this end, *first*, consider the strength of the tree : and leave none but those, which are upon strong branches : and of them only the largest and most regularly situated blossoms ; and not so numerous as to injure the tree.

You may still shift plants into larger pots. But observe that both the plants now shifted, and those shifted last month, must be placed in a shady situation and defended from high winds, for five or six weeks.

Watering now becomes general. Pots and tubs must always be kept moist. And be diligent in keeping them clear of weeds and decayed leaves.

The best method to increase *myrtles* is by *cuttings*: which must be taken off and planted after the 15th of *June*. For this purpose prepare pots of light earth: cut shoots of four, five, or six inches long, and strong and of a healthy plant. Strip the leaves of these cuttings, about two thirds of their length : plant them about two inches asunder, and two thirds into the earth. Water them gently : and put them under cover, or shaded from the heat of the sun, till they have struck root, which may be five or six weeks : if care be taken to preserve them from weather, and to water them gently twice or thrice a week. Some put them in a frame and cover them with glasses, and shade them in the heat of the day with a mat.

In the same manner plant *cuttings* of all sorts of *geraniums*, the *African sage*, the *amber tree*, the *cistus* and *double nasturtiums*, and many other *exotic shrubs*, and treat them as directed for the *myrtle*.

The culture of *succulent plants* is performed in a different manner, *viz.* In *June* take off cuttings from *euphorbiums*, *ficodeffes*, *cereuses*, *sedums*, *Indian figs* and such

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such like kinds ; and lay them ten days, or till the cut or wound be healed, on a shelf in an airy place free from sun. This is to heal the part that was cut. Then plant them in pots filled with light dry compost. The *sedums*, *Indian fig*, *ficodeffes*, and other hardy sorts require no more than to be placed, after potting, in frames with glasses, and to be shaded from nine in the morning to four in the afternoon, when the sun shines very hot : giving them air by raising the glasses. The tender succulent cuttings, as the *euphorbium*, *torch-thistle*, &c. won't strike root without the help of a hot-bed of bark or dung ; into which the pots must be plunged to the brim : but you must shade the glasses over them, with a mat, in the heat of the day. And they must have a little both of air and water.

The same directions are to be observed for *exotic seed ings*, that are now to be transplanted into *auricula* pots, filled with light earth.

You may still lay down *myrtles*, and other shrubs propagated by *layers* : and it is not too late to *inarch oranges*, *citrons*, &c.

IN JULY.

Clear pots and rubs from weeds and litter : and you may remove any green-house plants in the course of this month ; according to the method described. In dry weather water the plants in small pots every three or four days, according to the sizes of the pots or tubs, and their situation nearer to, or further from the sun beams.

Examine the earth in all the pots and tubs, and with the hand loosen the mould, till you reach the fibrous parts of the root of each plant ; and having added a little fresh compost, lay it close up again, and smooth.

In the beginning of this month continue to lay down exotic shrubs, as directed before. And bud *orange* and *lemon-trees* after the 15th, upon stocks raised

ed from the kernels of the same sorts of fruit, sown in *March*, in the manner there directed.

At the time of *budding* take the stocks into the green-house, or some open dry place. In this situation turn the side, where the bud is fixed, from the sun; and also skreen the plant with mats, when the heat of the sun seems to be too powerful. Or, you may plunge the pots a week or two into a hot-bed, which it is thought will make the buds take more freely.

Keep these plants all winter in the green-house. About the last week in *March*, plunge their pots in earth upon a moderate hot-bed. At which time cut the head of the stock off, two or three inches above the bud. In this state give the plants water discretionally, and raise the glasses to give them air. The *buds* cut the end of *July* will have made very strong shoots: so that they may be exposed to the open air in *August*: and thereby so harden, as to abide the winter in the green-house.

Survey *orange* and *lemon-trees* daily; and not only water them as they grow dry, but thin the young fruit, as before directed: and divest the trees of all flowers, where there is found a sufficient quantity of fruit already set. Then, if not done before, refresh their pots or tubs with some new earth by taking some out and replacing it with fresh earth immediately: always giving water to settle it to the root.

Myrtles, *geraniums*, *African sage*, *cistus's*, &c. may be now propagated by cuttings, taken from shoots of the same summer's growth. Let the myrtle-cuttings not exceed five inches in length: the others should be from five to eight inches long, and otherwise managed as directed in the month of *June*.

No particular length can be ascertained for the cuttings of succulent plants: therefore take them from two to eight inches in length, according to the growth of the several kinds of plants. And as to the method of treating these cuttings, see the directions in the foregoing month.

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In AUGUST.

There is no better time than in *August* to shift *green-house* plants into large pots. Which work is performed in this manner : take out the plant with a ball of earth from the pot or tub. Trim off the matted and mouldy roots. Pick away part of the old outside earth ; plant it in the large pot upon a layer of fresh earth, and fill up the vessel properly with new compost. Then, having given it a sufficient quantity of water to settle the earth about the root, place the plant so as to be sheltered from high winds and too much sun. *Succulent shrubs* may be managed in the same manner, provided it be done at the beginning of the month.

Propagate aloes by slips or off-sets, set singly in small pots of very light dry compost. Close the earth about the plant, give it a gentle watering, and set it clear of the mid-day sun. Water all the exotics, as directed in the foregoing month. This is the most proper season for *inoculating orange trees* ; if performed before the 15th day, and upon stocks raised from orange kernels ; as before directed in the month of *July*.

In SEPTEMBER.

The summer being expired, you must now begin to carry the *orange* and *lemon trees* and other tender *exotics* into the *green-house*, to secure them from the dangers of a cold sharp night. This work must be done in a dry day ; having first cleared every plant from dead wood, and dead or withered leaves. But don't shut the windows of the greenhouse, except in frosty days, and muddy and wet weather, and at nights after the middle of the month.

Let them be watered more cautiously than in the heat of summer ; having first stirred in a little of the tops of the pots or tubs.

In OCTOBER.

Proceed with housing *orange*, *lemon*, and such like plants, as soon in the month as possible. And about the middle you must take in *myrtles*, *geraniums*, and all other *green-house plants*, and treat them as directed for the *exotics* in last month.

In NOVEMBER.

In mild weather open the *green-house windows* about nine in the morning, and shut them about three; or sooner or later, as the air is more or less sharp. Pick off dead leaves. Keep the house clean: and water the plants according as you find there shall be need.

In DECEMBER.

Guard against frost, foggy, severe, and tempestuous weather: and take the advantage of mild open weather to give air to the green-house. And in some very cold seasons, it will be requisite to make a moderate charcoal fire, in the most distant part from the plants. The woody kinds will require water now and then: but the greatest care must be taken not to overcharge these or any other plants with that element. The *Aloes* and other *succulent plants* require very little water: too much will rot them.

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T H E

H O T - H O U S E .

THE desire of having many productions in the vegetative creation earlier at market, or upon the table, than can be obtained in the natural culture of the produce of the fruit and kitchen garden, has put the curious and skilful gardeners upon trying measures to supply heat, or bring *hot-houses* into such degrees of heat, as shall answer the warmth of every climate from whose region our *exotics* are brought: and to force our native produce of herbs, fruits, &c. into a state of maturity before their natural seasons, for their pleasure and advantage: and this practice is now arrived to such a degree of perfection, that the management of the *hot-house* is become a consequential part of gardening. Therefore it will be necessary to lay down periodically those directions which are the result of long experience, for the conduct of the gardener in the hot-house, month by month.

In JANUARY.

As to the nature of the *hot-house* in gardening, and the requisites to form the same for the purposes of vegetation, the reader is desired to turn to our essay on vegetation, and on *stoves* and *hot-houses* in the beginning of this book.

The work to be done in this month is to make and keep up a very regular fire every evening and morning. Too strong will burn up: too slack will perish the whole stock of the house. Therefore examine the bark frequently; and if found that the heat is faint, take up the pots; stir the bark, and even add fresh bark, if necessary: into which replunge the pots. But if there be good heat in the tan, give the plants a moderate watering once a week, so as not to wet the heart or between the leaves of the plants with watering pots made for that purpose: and the water should be kept at least ten days in a tub within the hot-house. Woody kinds require more water than others. And keep this house and the plants clear from dust, and all sorts of foulness, as directed in the *green-house*.

Cucumbers, French or kidney-beans, and strawberries, may now be raised in the hot-house.

Sow *cucumbers* in boxes about four feet long, nine inches deep, and a foot or fifteen inches broad, filled with rich earth, and placed about a foot or more over the top of the bark or end flues; or rather upon supports of about eighteen inches from the top glasses, behind the place where the bark of the roof and upper part of the glass join. However some choose to raise them in pots plunged in bark, and then transplant them into boxes.

In each box sow three patches, and seven or eight seeds in each patch; allowing for accidents, and for a chance of strong plants, when there are enough to thin out; so as to leave three of the most healthy plants to grow. Water every other day: and contrive a row or two of laths fastened to the outside of the vines to run upon.

Kidney or French beans are sown in boxes of the same dimensions of cucumber boxes, except that these are to be only ten inches wide at top, and eight inches at bottom. Sow the *speckled-dwarf* and the *liver-coloured kidney-bean* an inch deep in drills, at the distance of three inches: and as soon as they have sprouted, sprinkle

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sprinkle the earth with a little water : but when they are up, water them discretionally and frequently.

If you have no boxes ; they will succeed very well by sowing four beans an inch deep and three inches apart in pots.

Plant *scarlet strawberries* in pots about *Michaelmas* ; having taken them out of the natural earth with a ball about the roots ; pare the ball round, and clean them from dead leaves, &c. Then in *January* place them near the front of the hot-house, water them frequently, and they will produce fruit in perfection.

IN FEBRUARY.

Attend the bed where the *pinus* are plunged : for some plants will now begin to show fruit : and then they require a lively heat. Therefore in the first week of this month, if not done before, stir up the bark in the bed almost to the bottom, which will cause a fresh fermentation, and consequently increase the heat of the bed. But when you do this, take all the pots out first ; and with a fork break all lumps, mix the parts well, and dig quite to the bottom. Then level the surface, and re-plunge the pots as before.

About the middle of *March* repeat this work : and then add one-third of fresh tan.

If you have any fruiting *pinus*, keep the pots moist in a middling degree. The same mediocrity must be observed in those plants that are in succession to fruit next year ; and in watering *crowns* and *suckers* ; always taking care not to let any water fall into their hearts : for which there are proper watering pots.

As for other exotics, treat them as directed in the foregoing month, both in regard to watering and cleanliness : stirring the earth, now and then, on the surface of the pots.

Admit air into the house at convenient seasons. And if you desire early *roses*, *honeysuckles*, *carnations*, &c.

&c. they will do extremely well, if placed in the hot-house early in this month and kept properly watered.

You may plant more *cucumbers* and *French beans*, as in last month. Water them that are sprung up. And if the frost sets very severe, you must cover the hot-house with mats, and keep the fires within very regular.

In MARCH.

Keep the bark-bed for *pinces*, which now in general show their fruit, in a proper degree of heat, that is lively, not faint: and if needful, add fresh bark in the manner already directed. And give both the *pinces* and other plants air and water, as directed in the foregoing months.

In APRIL.

All the *exotics* must be carefully attended. Shift them (except *fruiting pinces*) into larger pots, that require it. Take them out with a ball; and fill up the new pot with fresh compost: and plunge them immediately into the bark-bed.

The *woody-kind* require water every four days: the *succulent* must be watered very sparingly, and not so often. All must be kept very clean.

In this month also shift the *crowns* and *suckers* of *pinces* into pots of a larger size, as directed above, and plunge them to the brim in the tan-bed. The same must be done with the *pine-plants* that are in succession for the next year. And if any be found sickly, or infested with insects; clear away all the earth from them, and trim the fibres pretty close, and the bottom of the main root. Then pot them and set them again in the bark, after it has been stirred up and refreshed, if needful.

The *fruiting pinces* require daily attendance, and water them frequently.

Open the glasses a little way, in warm sunny days, and in the heat of the day; and otherwise water and manage

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manage the stock of the house, as directed in last month.

In MAY.

Manage the *pine-apple plants* as directed before: and in general there is nothing more to be done in the hot-house this month, than to keep the stock clean, and duly supplied with water and air by opening the glasses a little way in the heat of the day.

In JUNE.

The principal work to be done this month, in the hot-house, is to supply the plants properly with fresh air, and a due proportion of water.

In JULY.

The *pine-apples* begin now to ripen, and will require more fresh air, than at other seasons; but they must be watered with great discretion, or the fruit will be spoiled in its flavour.

When the fruit is cut, take up the pot with the old root: cut all the leaves off within a hand's breadth of the top of the pot: and pull off the under leaves round the bottom of the plant. Then take a little of the old earth from the top of the pot, fill it up again with some fresh compost, water it, and plunge it into the tan-bed.

These old plants thus managed will soon throw out suckers: which take off at the length of four, five, or six inches, and plant them thus. Having taken the *suckers* from the *mother-plant*, lay them till they be perfectly dry and firm, in a shady part of the hot-house. Then plant each sucker in a small pot filled with proper compost. Water them so as to settle the earth: and place them to the rim in a tolerable hot-bed. A bed of new horse-dung, with a frame and glasses, and mixed with bark, will answer this purpose, when it has lain till its burning heat be over. The *crowns* of the *pine-apples* are managed in the same manner.

In

In the last week of *July* shift the *succession pines* into the pots, where they are to remain for fruiting. Lay four inches of compost at the bottom of the new pot. Then, taking the plant out of its old pot with a ball, place it in the new pot, and immediately fill it up with fresh compost, so as to cover the top of the ball about an inch. And, having first stirred up and refreshed the bark, as directed before, place the new pots in a regular manner, the largest backwards, up to their rims.

IN AUGUST.

The principal business of the hot-house, this month, is to manage the *pines*: for doing of this work, you have sufficient instructions in the foregoing month.

IN SEPTEMBER.

If any *succession plants* of the *pine* have not been shifted into larger pots, don't let that work pass over the 8th day of this month, for doing of which you will find directions in former months.

Examine the heat of the beds in which these *pines* were plunged about five or six weeks ago; and add fresh bark, and stir up to the bottom the old bed, as directed on other like occasions.

Forget not to refresh the plants with both air and water in due season and proportion. Keep a good heat for this year's *crowns* and *suckers*. And if the pots be placed in a dung hot-bed, line it, as directed in pages 19 and 45. Take care also that the plants be not destroyed either by frost or steam. Therefore cover the glasses a little in the heat of the day.

Towards the end of the month, bring in fresh tan, as much as may be required for next year's use. Throw it in a heap for ten or twelve days to drain.

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In OCTOBER.

The tan being duly prepared, as directed last month, take out the pots. Sift all the tan in the bed. Throw away the dust, and mix the remainder with as much new bark, as required to fill up the pit. Mix or work the new and old together very well. Then plunge the pots: but if, upon due attention, the bed be found too hot, raise them up half way, till the heat becomes moderate. The like is to be done with the *succession pines*.

About the middle of this month begin to make fires in the evening; and in the morning also, in very damp and cold weather.

Water and let in air discretionally, as directed in former months.

In NOVEMBER.

We must look upon the *pines* to be placed now in winter quarters. Therefore there is nothing to be done but to keep a moderate regular fire, and to give them water about once a week.

In DECEMBER.

In *December* keep the fires as directed last month; and if the weather turn out very severe, keep them night and day. And cover the top-glass of the hot-house every night with shutters or mats, or rather with painted sail-cloth, fastened to a pole made to roll up and down with pullies and ropes. And you may raise *carnations*, *pinks*, and other such like kind of flowers, *French beans* and *cucumber plants*: and do the necessary work, as directed in *January* and *February*.

But

But to these instructions, in regard to the *anana* or *pine-apple* in particular, I shall add the whole management of that rich fruit in the following manner.

The PINE-APPLE.

The *Anana* or *Pine-apple*, of which there are five sorts; *oval-shaped with whitish flesh, pyramidal with yellow flesh, smooth-leaved, shining green-leaved and few spines, and olive-coloured*, all raised by suckers; and by the crowns twisted out of the fruit, and laid to dry in the stove for five or six days. Then plant them in small pots, and plunge them in the *bark hot-bed*; gently water them near three weeks; and, when they are rooted, treat them as old plants.

The second sort is very good, and increases fastest; but the last sort is esteemed the best.

In very warm weather, water them every other day, but give not too much at once; and, once a week through summer, gently water them over their leaves; if not very hot weather, water them about twice a week.

New pot them at the end of *April*; and the suckers and crowns of the former year's fruit should be put in larger pots, according to their sizes, but never overpot them. The end of *August*, or beginning of *September*, new pot them again, putting such as are to fruit the next spring into two-penny pots. At each shifting stir up the bed, and add some fresh tan; and, when the pots are plunged, gently water over their leaves. They require no fire till the beginning of *November*, or later, according to the mildness of the season.

In winter, water them not oftener than every third or fourth day, according to the dryness of the earth in the pots. Never shift those plants that show their fruit, but keep them in a vigorous, growing state. When the fruit you would propagate is cut from the stalk, trim the leaves, and plunge the pots in a moderate hot-bed; and frequently gently water them, to cause them to put forth suckers.

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When you perceive them infested with insects, take the plants out of the pots, and clear the earth from their roots; then plunge the plants, for twenty-four hours, into a tub of water strongly tinctured with tobacco-stalks; then with a sponge, wash the insects from the leaves and roots; cut off all small fibres from the roots, and dip the plants in a tub of fresh water, and wash them: then put in fresh earth: stir up the bed, and add some fresh tan: when the pots are plunged, water them over their leaves, which must be frequently repeated through *summer*.

The earth should be a good, rich kitchen-garden mould, not too heavy, nor too light and sandy; or good, fresh earth from a pasture, mixed with one-third part of rotten neats dung; or the dung of a well-consumed melon-bed, mixed three months before used, and often turned, but not too finely screened. The stoves are made low, with pits in them for the hot-bed, as the bark-stove, but much lower. Have a bark-bed, under a deep frame, to raise young plants. In this bed you should plunge the crowns and suckers; but they should be removed into the bark-stove the beginning of *November*; and, the beginning of *March*, place them in the hot-bed again; which should be made a fortnight before; and, if too hot, only plunge the pots two or three inches deep in the tan; and after, by degrees, as the heat goes off, sink them down to the rim. Cover the glasses in cold nights, and place not the pots too close: when the sun is very warm, raise the glasses, and shade them in the middle of the day. When the plants remain plunged in the bark-bed, in the stove, all winter, they must not have so much moisture, or be so often watered, as if placed upon boards.

If you have no dry stove for this purpose, you may raise the plants out of the hot-bed, level the bark, and lay some old boards thereon, on which place the pots.

The

The beginning of *March*, renew the bark-bed in the stove, and place the plants therein; but first take out half the old bark, and put in as much new, and mix them well together. Let the pits be two feet and a half deep.

Suckers are planted in autumn; and, the middle of next *April*, renew the bark-bed; take out the plants, and trim their roots, then put them in penny pots to remain till *Michaelmas*.

As the heat of the tan declines, stir it up, and add some fresh: keep the bed to such an height as the plants may not be bruised by the glasses. In cold or dark weather, the glasses should be turned upside down, to dry; when the weather will not permit this, wipe them with a piece of woollen cloth; or have shutters made of woollen or baize under the glasses, of a dark colour, to be taken out in the morning.

The end of *September*, or beginning of *October*, take out half the old tan, and add as much fresh, and mix it well together; then lay ten inches thick of the old tan over it, to raise the whole five or six inches above the level of the walk; then take out the plants, with a ball of earth to their roots, and take off the decayed leaves at the bottom; then plant them in the tan, in rows two feet square, or less, as their size requires. They should have less water than those in pots: in *winter* they need not be watered above twice a week, giving a pint each time to every plant; but in *summer* they must have it oftener, and in greater plenty. Fix a few stakes round the bed, some of one foot and others of two feet above the bed, and pass two rows of packthread to surround the whole. In *spring*, carefully stir the surface with your hand, and add a little new tan, but do not raise it too high about their stems; treat them in *summer* as those kept in pots, only they neither require so much water or air.

Let there be no fires made in summer, unless there is an absolute necessity; and even then but slightly,
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and no longer than the dark weather continues. By this method they will ripen sooner than the time of bringing young plants into the stove for the next year.

The old shoots may be taken out of the bed, and the suckers taken off for increase ; and, if a large supply is wanted, place the old shoots in pots.





THE FLOWER GARDEN;

CONTAINING

The ART of raising ANNUAL, BIENNIAL, PERENNIAL, and ABIDING FLOWERS, divided into Classes; and all Bulbous-rooted Flowers.

WITH

An Account of the proper Culture of each of them, whether in the natural Soil, or upon a Hot-bed.

Together with a LIST of Flowers that blow in every Month throughout the Year.

A TABLE of the principal ANNUAL and BIENNIAL FLOWERS and PLANTS, commonly cultivated in this Island.

PLANTS and FLOWERS *to be sown in Spring.*

THE scarlet Bean, Snap Dragon, Candy Tufts, <i>red and white,</i> Caterpillars, Dwarf Sunflower, Geraniums, <i>blue, purple,</i>	<i>French</i> Honeyfuckle, Germander Tree, Catchfly, Lupines, <i>blue, yellow, rose-coloured and white,</i> Marygolds, <i>large, double, largest double, &c.</i> Nasturtium,
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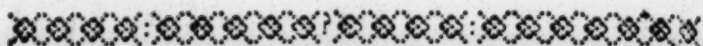
Nasturtium,	Stock Gilliflower,	} On a hot-bed in February, Mar. or Apr.
Sweet scented Pea,	Amaranthus,	
Rocket,	Female Balsams,	
Yellow Starwort,	Capficums,	
The Globe Thistle,	Winter Cherry,	
China After or Queen	Ficoides,	
Margaret,	Golden Rod,	
Hearts Ease,	Mavel of Peru,	
Balsams, <i>purple, white,</i>	African Marigolds,	
<i>red, yellow,</i>	French Marigolds,	
Rose Campion,	Passion Tree,	} On a hot-bed, ditto.
Canterbury Bells,	Senna,	
Chrysanthemums,	Sensitive, or humble	
Convolvulus, <i>greater and</i>	Plant,	
<i>lesser,</i>	The Ivy Plant,	
Everlasting Flower,	The Tuberoſe,	
Germander,		

BULBOUS and TUBEROSE-ROOTED FLOWERS.

The Winter Aconite	Dogs Teeth,
Stremore,	Chequerel Tulip or Fri-
Asphodil,	tillary,
Colchicums,	Hyacinth,
Crocus, twenty sorts,	Iris,
Crown Imperial,	Lilly,
Cyclamen,	Guernsey Lilly,
Narcissus,	Martagons,
Peony,	Ranunculus,
Snow-drop,	Star of Bethlehem,
Daffodil,	Tulips.

N. B. The time for transplanting bulbous roots, is, when their green leaves are decayed: the variegated sorts should be taken up every year, the others every third or fourth year.

A TABLE



A TABLE of the principal PERENNIAL and
ABIDING FLOWERS, divided into
CLASSES.

The TALLEST CLASS. The Scarlet and American
blue Rampions,

THE Acanthus or Bear's Breech, Asphodil or King's Spear, Virginian After, Campanula, <i>white</i> and <i>blue</i>, Centaury, Geraniums, Dragon's head, Feverfew, Golden-rod, Holly-hocks, Indian Reed, Sun Flower,	Carnations, Flakes, Bizers, Pickatees, Painted Ladies, Catchflies, Germander, Goldy Locks, Honey Flower or Locust, Larkspur, Lupine, Scarlet Lychnis, <i>single</i> and <i>double</i>, Double Marsh Marigolds, Meadow-sweet, Ox-eye-daisy, Pinks,
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The MIDDLE CLASS.

The Adonis, <i>or</i> Bird's Eye, The yellow Starwort, Bachelor's Buttons, <i>red</i> and <i>white double</i>, American Dwarf Campa- Rose Champion, <i>†</i> Candy-tuft tree, Columbine,	China Pinks, Oriental Poppy, Ragged Robin, Rockets, Sweet Mountain Rose, Sweet Williams, Dutch Pink or William, Dame's Violets, Wall-flowers.
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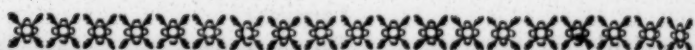
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The LOWEST CLASS.

Auricula,	Lilly of the Valley,	
Dwarf Sunflower,	Orpines,	
Convolvulus,	Polyanthus,	
Daisies,	Primrose,	
Dragons,	Globe Ranunculus,	
Knot-grass,	Spanish Columbine	or
Grass of Parnassus,	Meadow Rue,	
Hepatica or Liverwort,	Sedums,	
Lady's Slipper,	Thrift,	
	Violet, many sorts.	



The



The STOCK and PRODUCE of the
FLOWER GARDEN.

In JANUARY.

THE winter aconite, single wall-flower, black hellebore, snow-drop, single anemonies, winter cyclamen, gentianella, polyanthus, helleboraster, early starry hyacinth, black hellebore, perennial navel-wort, blue flowered hearts ease or pansies, yellow albine, alyson, periwinkles, and sometimes in a warm situation, the duke van tel tulip.

The WORK and LABOUR to be done in the MONTH
of JANUARY.

Every thought must now be employed in ways and means to preserve your choicest flowers from the accidents and severity of the season, much snow, heavy rains, sharp cutting winds and hard frost. For which purpose be well provided with frames, hoops, and mats.

If not done before, plant *anemonies*, *ranunculuses*, *jonquils*, *narcissuses*, *hyacinths*, bulbous *irises*, crown *imperials*, and all kinds of bulbous flower-roots, as soon as possible in this month; always choosing a mild dry day for that work.

For *ranunculuses* and *anemonies*, make their beds rounding, about three feet and a half wide: and plant them two inches and a half deep: six inches between plant and plant, in rows nine inches from each other. Nothing hurts this plantation so much as wet.

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Make *tulip*-beds four feet wide, and about three inches higher in the middle than in the sides. Plant them dry, four or five inches deep, in rows nine inches distant each way. If they are to be planted in borders, do it in rows about a foot from the edge, and each root nine inches distant. Thus you are to manage in planting all bulbous roots in this month.

Plant *crocuses* in rows within six inches of the border. And they appear in their greatest beauty, when set close and diversified by alternately planting yellow, blue, and white, &c.

Cover the beds in which are planted your most favourite and curious roots with hoops and mats, fastened down, to prevent their being blown off in wet or severe frosty weather: but give them air continually in open weather. Some use long litter instead of hoops and mats; which does very well; but it must be carefully taken away when the severity of the season is over.

As for pots of *carnations* and *auriculas*; those flowers will certainly perish, if left exposed to heavy rains or snow, or to hard frost. Therefore it will be necessary to keep them under an arch of hoops and mats; and to uncover them in mild and open weather. And towards the end of this month, if the season will permit, clean the *auriculas* from dead leaves, and take off as much of the old earth from the top as can be done without injuring the root. Then fill up the pot with the compost prepared for these flowers, and preserve them as above directed.

All *seedling flowers* at this season require to be covered either with long litter, or pease-straw, &c. But lay them open to the sun and gentle rains.

The like care must be taken of *double walls*, and *double sweet williams*; the cuttings of double chrysanthemums, and all of the like kind. They must be covered either with glasses and frames, or with hoops and mats, allowing them the soft air at convenient times. The same rule is to be observed in the management of all fibrous rooted perennial plants.

If the season proves favourable you may in this month plant the *gilder rose*, *Persian lilac*, *roses*, *lilac*, *boneysuckles*, *althea*, *spiræa frutex*, and *syringus*. And transplant suckers from their roots; which, set in rows about eighteen inches asunder, will in two years make good plants.

You may also remove *jessamines*, the *bladder senna*, *laburnums*, *dwarf almond*, *double blossom cherry*, *double blossom peach*, *sweetbriar*, *mezerion*, and such like hardy kinds of shrubs: observing the weather, and also to place the taller plants more back, and the shortest in the front: so as to set every row in full view, and each plant at the distance of four or five feet from each other, or in proportion to their bushiness.

Plunge evergreens and shrubs in pots, that are able to stand the weather, to their brims in the earth, where it is not subject to be wet by the water standing upon it: and keep the roots of those that remain in the ground warm, with laying a sufficient quantity of litter upon the surface, as far as you judge their roots may extend. At the same time clear away the suckers from the old roots, and trim their tops of not only dead wood, but of all superfluous and straggling branches, carefully with a knife, not with shears; neither will it be amiss to dig up the earth between these shrubs and greens, and shorten all the wandering roots; provided you don't thereby disturb the plants. And after all secure them from high winds by tying such to stakes, as require support.

Where it is required, this is a good time to plant edgings, to your beds of *box* or *thrift*, and to lay turf for grass beds or walks. The *thrift* must be planted very thin, otherwise it will look too cumbersome in the summer: and the *box* in an edging as close as possible about one inch thick. Dutch *box* is the best for this use.

The best turf is cut upon commons where there are abundance of sheep fed. It must be cut in pieces about twelve inches wide, and three feet long, and a
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little better than an inch thick. By which means it may be packed up, or rolled and carried without damage. When you use it, take open weather for your work, lay it very regular and as close as possible, edge to edge, and when finished beat it down to the earth with a beater made of a heavy piece of oak fourteen inches square, with an upright wooden handle: and when that is well done, and the turf seems to be fixed close and even to the land, roll it well with a heavy roller. A work that is also required pretty much at this season on lawns, grass-walks, and gravel-walks, where it is desired to keep them neat.





The STOCK and PRODUCE of the

FLOWER GARDEN,

In the MONTH of FEBRUARY.

THE winter aconite, spring crocus, snow drops, early hyacinths, starry hyacinths, single anemones, Persian irises, single daffodil, hepaticas, single wall-flowers, several sorts of helebore, double daisies, stock gilliflower, spring cyclamen, heleborafter, great snow drop, early tulips, polyanthus, sorrel-leaved perennial adonis, narcissuses, hearts-ease or pansies, periwinkles, yellow alpine, alysson, eastern alysson purple-flowered, violets, &c. &c.

The WORK and LABOUR to be done in the FLOWER GARDEN, in the Month of FEBRUARY.

If you have not finished your turfing, and your box and thrift edgings, you may proceed upon that work in the manner directed in *January*. And you may about the middle of this month transplant *yew*s, *ever-green oaks*, *hollies*, *cedars*, *cypress*, *firs*, *junipers*, *phyllygreas*, *laurustinus*, *pyracanthus*, *arbutus*, and other hardy kinds of ever-green-trees and shrubs, when the weather will permit. Remembering always to plant them in such order and view, as not to interfere with each other, and to afford a pleasant sight to the admirers of gardening.

You also continue, by the rules laid down in *January*, to remove all the flowering shrubs there mentioned, and many other hardy plants of the like sort:
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and to take off suckers, and to prune the shrubs from dead wood, and to shorten and thin the branches in the manner there also directed.

Cover the beds, as directed in *January*, where you have planted the best *tulips*, *hyacinths*, *anemonies*, and *ranunculuses*. And pay the same attention to the *auriculas*, as ordered last month.

Plant *polyanthus*, *primroses*, *double daisies* and *camomile*, *London pride*, *hepaticas*, *violets*, *thrift*, *saxifrage*, *campanulas*, *rose campion*, *scarlet lychnis*, *rockets*, *sweet-williams*, *columbines*, *pinks*, *carnations*, *Canterbury bells*, *perennial sunflower*, *hollyhocks*, *perennial asters*, *golden rod*, *French honeysuckles*, *catchfly*, *bachelors buttons*, and many others. But take care to plant them in such a manner as to have a succession, and to delight the eye by their regularity.

About the latter end of *February* begin to pot your carnations or whole blowers of all sorts, into the pots where they are to remain for blowing. For this purpose provide a quantity of light rich earth to fill a large size pot, and take two sound layers or plants, taken up with as much earth as will hang about their roots, and place them about three inches distant about the centre of the pot filled up with rich earth; closing the earth very well to the bodies of the plants. Then settle all with an immediate moderate watering.

About the same time, if the weather be open, sow *larkspurs*, *lupines*, *convolvulus*, *candy tuft*, *catchfly*, *sweet-scented pease*, *flos adonis*, *dwarf annual sunflower*, *dwarf lychnis*, and many other sorts, in such places only, where the plants are intended to stand: for they will not bear transplanting. Let the earth intended to be stocked with any of those flowers be well dug and raked. Sow them in patches, if you think proper, about nine inches over, or in drills, or otherwise: in any of which ways, draw a little earth with a trowel off the surface to one side. Sow the seed of the sweet-scented pease, and such like, very thin, and about an inch deep: but the small seeds must not

be covered above half an inch. These flowers are a very good stock for borders.

Prepare a moderate hot-bed against the end of this month to raise *ten-week stocks* for an early bloom. But if that can't be had conveniently, sow them in a cucumber frame; or even upon a warm border well secured from the cold, &c. with hoops and mats, or hand glasses. Those raised in a hot-bed nevertheless, are much more preferable both for being stronger and earlier by three weeks in their bloom.

Towards the middle of this month begin also to prepare a hot-bed, to be made according to the directions given in page 19, &c. for raising such annual plants that are not to be had in any sort of character without that help: such as *cockscombs*, *balsams*, and *tricolors*, *marvel of Peru*, *ice plant*, *China asters*, *egg plant*, *Africas*, *French marigolds*, &c. &c. Sow their seed on the surface, separately, and cover them with a quarter of an inch of very fine sifted, light earth, or in very shallow drills from the back to the front of the bed, and closed up very lightly: and when the plants begin to appear, give them a discretionary watering now and then: in mild weather give them air; but always cover them close at night.

Sow *polyanthus* and *auricula-seed* in pots or boxes filled with light, rich earth: and set them on a warm spot, defended from the northerly wind, and exposed to the morning and mid-day sun. Let the seed be sown tolerably thick, and covered as thin as possible with the lightest earth you can procure, such as willow dust, &c.

Clean the beds and borders from weeds and rubbish of all kinds: and in a dry day loosen the earth, and rake it neatly. And keep the lawns and grass-walks well rolled, and cut their edges with the edging iron about the end of this month.

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*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of MARCH.

SINGLE and double anemonies, hyacinths, jonquils, several kinds of narcissuses, early tulips, various kinds of crocuses, polyanthus, violets, daisies, wall-flower, stock gilliflowers, several sorts of irises, hepaticas, crown imperial, double and single primroses, auriculas, fritillarias of various sorts, grape hyacinths, daffodils, large snow drops, double snow drops, perennial adonis, and fumitory, double pilewort, alyssons, spring colchicums, wood anemonies, hermodactile, dens canis, and muscary.

*The WORK and LABOUR done in the FLOWER
GARDEN, in the MONTH of MARCH.*

Most kinds of perennial and biennial flowers may be sown any time this month with success.

Sow *stock gilliflowers* of all sorts, *wallflowers*, *sweetwilliams*, *pinks*, and *carnations*: the single *rose campion*, *scarlet lychnis*, *scabiouses*, *Canterbury bells*, and *catchfly*, *holiboeks*, *French honeysuckles*, *campanulas*, *foxgloves*, and the tree primrose: on light ground in a warm situation, at a distance from walls and fences. Sow each kind separate; and in depth according to their respective bigness, viz. a large seed in a hole or drill half an inch deep: a small seed one quarter of an inch deep; or the small seeds may be sown

by broad cast upon the surface of the bed made very smooth; and covered with the rake. If the weather be dry, water them gently, as often as needful, and the plants will be in a condition to prick out in ten weeks or thereabout.

You may plant *anemonies* and *ranunculuses* for a latter blow in *May* or *June*, but you must water them frequently after the plants appear above ground.

Make props out of a birch broom for the support of *hyacinths*, or bring upright sticks and fix them close in their pots to the stem of the flower, and tie the flower to it neatly with a piece of soft twine or other thing.

The *auriculas* are now in forwardness: therefore keep them free from weeds and decayed leaves; refresh them moderately with water, so as to keep the earth moist about their roots: permit them now and then to have a gentle shower of rain: but still remember that you do not suffer them to be exposed to cold winds and frost.

The flower-buds of *tulips*, *ranunculuses*, *hyacinths*, and *anemonies* advancing apace, you must double your care in their management, to preserve them from cold rains and frost, if you would have them blow in perfection. Cover them with mats on an arch of hoops every night and in bad weather: and take care that the hoops or covering be high enough for the heads of the flowers: and give them both fresh air and moderate showers of rain, when they are mild.

Examine the carnation pots. Finish the transplanting of the layers into large pots; and having taken away the dead leaves from those which had been p'anted last autumn in pots to remain, remove the earth as deep as possible without disturbing the roots, and then fill up their pots with fresh mould prepared for that purpose. Press the mould gently close to the plants, and water them to settle the earth. By which means the root will be enabled to throw out stronger and handsomer flowers.

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This is a good time to adorn the beds, and borders, &c. with *lychnises*, *rockets*, *catchflies*, *rose-campions*, *campanulas*, *pinks*, *carnations*, *sweet williams*, *golden rod*, *bachelors buttons*, *perennial sunflower*, *French honeysuckles*, *perennial asters*, *monk's-hood*, *columbines*, *Canterbury bells*, *fox-gloves*, and divers other sorts of perennial plants; and also *auriculas*, *polyanthus*, *double daisies*, and *camomile*, *hepaticas*, *London pride*, *christ*, *violets*, *gentionella*, *primroses*, &c. &c. always remembering to plant them in a good soil, and to water them from their first planting till they have taken root.

Likewise where flowering shrubs are wanted, this will be a good time to bring them in and plant them with success. The same we have experienced in transplanting hardy exotic trees and shrubs in the month of *March*.

Evergreens of most kinds succeed best, when transplanted at this season: such as the *arbutus* or *strawberry-tree*, *phillyrea*, *alaternus* and *pyranthus*: the *laurustinus*, *Portugal laurels*, *hollies*, *yews*, and *ever-green oaks*: the *cedars of Libanus*, *cytissus*, *cystuses*, *junipers*, *firs*, *pine*, *cypress*, &c. But take notice that this work is to be done with great care and judgment. It must be done with expedition; for evergreens and shrubs of all kinds require to be planted as soon as possible after they are taken up. So that you must first, before they are taken up, prepare holes at such distance as to leave room to hoe and dig the ground between each tree and shrub, capacious enough to receive the roots freely, and of a proper depth, with a loose bottom. Before the shrubs be planted, prune off the broken and bruised roots; set them upright in the holes, and fill them up a proper depth with the same earth, as was taken out, and break it well with the spade; always leaving a basin round each shrub to hold water, when it shall in dry weather be necessary to water them. And then lay some sort of litter round the root of the tree to prevent the sun's drying up the water. Lastly fix stakes to sup-

port the weak plants, to be tied to them: and water every shrub well, as soon as it is set.

Sow in such places, as suit best with hardy annual flowers, such as the *sweet sultan*, *lupines* of various sorts, *sun flowers*, *lavatera*, *larkspur*, *flos adonis*; the *convolvulus major*, *nasturtiums*, *sweet-scented* and *Tangier pease*; the *candy tuft*, *Spanish nigella*, *Venus looking glass*, and *navel wort*, *dwarf double poppy*, *catchfly*, *convolvulus minor*, *caterpillars*, &c. each kind separate in patches or drills in different beds and borders; to be thinned as they come up, if too thick, for few of them will bear transplanting.

Now is the time to put the *chrysanthemums* raised from cuttings in autumn into pots, one in a pot, to flower. And give fresh earth to the pots of *double walls*, *double stocks*, *double williams*, *rockets*, *rose campion*, *campanulas*, *lychnis*, &c. that have stood the winter, in the manner as directed for *carnations*.

Dig the borders, and make them smooth, if not done before, to prepare them for the reception of plants. Do this with a small hoe, stirring the earth carefully between the plants; clearing away the weeds, and taking care not to injure the roots of bulbous roots.

Prepare a hot-bed for the annual flowers to be pricked in, which have been raised according to the directions in *February*. Make the hot-bed as directed in page 19, &c. And also another hot-bed at the beginning of this month for the seeds of tender annual flowers, such as were sown last month; and they will produce in *July*.

At the same time make a slight hot-bed with five inches of earth on the top of it: on which sow the *marvel of Peru*, *China aster*, *Indian pink*, *Palma christi*, *balsam*, *capsicum*, *French marigolds*, *Africas*, *ten-week stocks*, *amaranthuses*, *scabiouses*, *stramoniums*, &c. in shallow drills about three inches asunder, each sort separate, and not too thick: cover the large seeds with half an inch of fine earth: the smaller with no
more

more than a quarter of an inch. When the plants appear give them air by raising the glasses every day, till they grow strong enough to have the lights entirely taken away. And if they be refreshed with water moderately, some of them will be fit to prick out in April or the beginning of May.

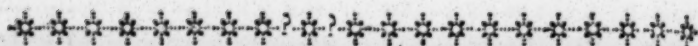
If a hot-bed can't be conveniently provided, some of these, as the *China aster*, *convolvulus*, *scabious*, *ten-week stocks*, *amaranthus*, *India pink*, *Africas*, *French marigold* and *chrysanthemums* will succeed by sowing their seeds thin on a warm border of rich earth arched over with hoops and matted all night, and in bad weather, refreshing the plants when they appear, with gentle sprinklings of water; so as to be fit to transplant about the end of May.

You may still plant box edgings and thrift and lay turf, as directed in *January*. But with this precaution, that you don't fail to water the box till it has struck root, and that you lay down the turf as soon as possible after it is cut.

Clean gravel walks of weeds and all kinds of litter. Mow grass walks, &c. before the turf gets rank. Clear them from worm casts, by spreading and rubbing: cut the edges and clean every part of the garden from litter.

If the gravel walks have been dug up and laid in ridges during the winter, which practice is allowed by some and disapproved by others, now is the best time to lay them down again; and in such a manner that the crown or middle of the walk shall be higher than the edges, at the proportion of one inch high to four in width. If they have not been turned up, it will be the best way now to kill the weeds and to make them look fresh, to turn the gravel up, and lay it down again immediately, after you have raked out all the weeds, moss, and rubbish. To do this in a workman-like manner, tread the gravel well till you get it into form, then smooth it with the back of the rake, afterwards beat it down with the back of the spade, and then roll it immediately.

The



*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of APRIL.

RANUNCULUSES, double anemonies, auriculas, tulips, crown imperials, double violets, double hepaticas, polyanthus, narcissuses, daffodils, jonquils, irises, fritillarias, hyacinths, spring cynamon, stock gilliflowers, single pæonies, daisies, muscary, dwarf flag, great snow-drop, spring colchicums, pulsatillas, bulbous fumitory, double ladies-smock, linarias, double pilewort, starry hyacinth, dens canis, gentianella, double caltha palustris, columbines, orinthogalum, Persian lily, double saxifrage, Venetian vetch, lychnises, alysson criticum, borage-leaved verbascums, and the blue-flowered perennial moth-mullein.

*The WORK and LABOUR done in the FLOWER
GARDEN, in the Month of April.*

As weeds will now grow plentifully, they must be destroyed either by hand or the hoe. Where the distance between plants will allow it, use the hoe. If it be sharp, and the weather dry, the work will be done with more ease, expedition and better. Then rake off all the weeds cut up, and other litter upon beds and borders.

Edgings of box and thurst may be still planted; but their success will be precarious. Nothing will be able to preserve them but well watering of them. And when your edgings are completed, turn up the gravel-walks; that will destroy the weeds and moss brought up

up on them in winter, and give them a fresh and lively surface; provided they be done as directed in the foregoing month.

Roll the pieces of grass, whether lawns or walks, frequently; and mow them always before the grass grows rank: and always roll the grass the day before it is intended to mow it.

In the first or second week, but not later, continue to plant *hollies*, *bays*, *yews*, *laurel*, *laurustinus*, *phillyreas*, *alaternuses*, *pyracanthos*: all sorts of *cistusses*, *pinus*, *firs*, *junipers*, *cypresses*, *arbutus*, the *evergreen cassine*, *cedars*, &c. and transplant and manage them as directed in *February*.

You may also venture to transplant several flowering shrubs, such as the *althea frutex*, *Persian lilac*; the *sennas*, *jessamines* and *honeysuckles*, *syringos*, *laburnums*, in the first week of this month. And water them well twice or thrice a week, if the season proves dry.

This is the season for blowing of *auriculas*: whose beauty consists chiefly in that mealy dust, that enriches the face of the flower. Care therefore must be taken to preserve that dust, by keeping the flower from high winds and from rain: which would blow and wash it quite off. For which purpose, make a stage or stand, with graduated shelves covered at top, and defended from the weather by a curtain, to hang in front, and to be drawn up or let down occasionally. Place the pots of *auriculas* upon these shelves, and attend them diligently, so as to keep the pots clear of weeds, and to water them moderately, as they shall seem to want it. Mark the plants intended for seed, which should be gathered from large flowers, that blow regular, and lay themselves flat, of a lively colour and bright eye, with a strait, tall and strong stalk. Water these plants often in dry weather, but always with moderation,

This is also the season for making an increase of *auriculas*, by taking off-sets from the old root. Which must be planted singly, in small pots of fresh earth.

Water

Water them moderately ; and set them in a shady place.

The seedlings of *auriculas* and *polyanthus*es (in boxes or pots) must be still kept in the shade towards the end of this month. And in the first week you may sow *auricula*-seed and *polyanthus*es.

Within the first fortnight sow *carnations* and pinks, tolerably thick, in large pots, on a bed of fine earth, covering the seed a quarter of an inch deep with fine light earth. These flowers are distinguished by the names of *stakes*, *bezers*, *picatees*, and *painted ladies*. Their seeds are gathered about the end of *September*, upon the stalks in dry weather. Then expose them through a glass to the sun for a month or two ; and they will be fit to sow in *April*, as above, and gently press the earth down with a board ; then place them to have the morning sun 'till eleven o'clock, and gently water them in dry weather ; in *June* transplant them in beds ten inches square, and shade them for about three weeks till rooted ; uncover them every evening. The second year when they begin to blow, make layers of the best sorts as soon as possible ; by cutting half through a joint, and splitting the internode upwards half way to the joint above it ; then bury the wounded part in the earth, and fasten it down with a forked stick. Transplant most of these layers in *August*, and next *March* transplant the rest ; but this is not thought so well as to transplant them in *August*. Take them off with as much earth to their roots as possible ; cut off all dead leaves, and their tops if they are too long ; and when planted shade them for some time, and defend them from hard frost through winter. The best soil is two loads of sandy loam, and one load of well-consumed melon earth, sifted well together, and laid in a heap to mellow, and then sift it over again. When the flower-stems appear, place a stick by each upwards of four feet high, and with bass fasten the spindles up to them as they shoot ; as soon as the flower-buds appear, leave but one of the largest on each stem. When the round
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podded sorts begin to crack their pods on one side, open the same with a fine needle on the opposite: three or four days before they compleat opening their flowers, with a pair of scissars cut off the points on the tops of the pods, and put in two small bits of vellum, or oil-cloth, between the leaves and the inside of their husks, to make up the vacancies. When they begin to show their colours, shelter them from the great heat of the sun. Leave to these sorts which burst, three or four stems to a root, and three or four pods to each stem. Place ox-hoofs, or bowls of tobacco-pipes on the sticks to catch earwigs. Old roots which are disposed to blow late, may be put into pots the end of *August* or the beginning of *September*; and in *October* place them in a green-house, and they will flower most of the winter. Let them not want water in their general season of flowering.

In *April* the seedling carnations will shoot up, and towards the latter end will require to be supported with sticks, thrust in the pots or earth near to their stems. To which they must be tied, as they grow tall, so as to do it between the joints. They also require to be watered moderately every other day. Stir up the earth about the flowers in pots: and clean them from worms, weeds, and all sorts of vermin and rubbish.

If you would preserve the bloom of *hyacinths*, *tulips*, *ranunculuses* and *anemonies*, they must be guarded against heavy rains, high winds and hot sun. For this purpose keep the beds arched over with hoops or a frame about a yard high, and have mats or canvas ready at hand to cover them when needful, in windy weather, hard rain and the heat of the day.

Now transplant *cockscombs*, *tricolors*, *amaranthus*, the *egg plant*, *balsams*, *stramoniums*, and other tender annual plants, sown in *February*, into a new hot-bed, if expected to bear large and beautiful flowers. Make the hot-bed as directed in *February*: remove them with a ball of earth, and prick them out at six inches distance; and water them moderately. Shade the
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glasses of the frame every day with a mat till they have struck root ; and raise them also, a little every day, to let out the stem of the bed. As they gather strength give them both more air and water : and raise the frame in proportion as the plants grow higher.

The *lupines*, *larkspurs*, *flos adonis*, *sweet sultan*, *candy tuft*, *catch-fly*, *snails*, *dwarf lychnis*, *lotuses*, *lobels*, *caterpillars*, *Virginia stock*, the *convolvulus major* and *minor*, *nasturtiums*, *sweet-scented pease*, *annual sun-flower*, *oriental mal'ows*, *lavateras*, and all other *hardy annuals*, may be sown in the manner directed in the former months ; and when they are sown, sprinkle the ground frequently in dry weather ; and increase the quantity of water after the plants appear above ground ; always attending to thin the seed-bed by picking or drawing out the weakest plants, and allowing sufficient room for the growth and spreading of the strongest.

About the middle of this month make a slight hot-bed for transplanting the hardiest kinds of annual plants. There need be no more than twenty inches of dung, and cover it with six inches of fine earth. In which plant *China asters*, *Indian pinks*, *French marigolds*, *Africas*, *marvel of Peru*, *balzams*, *chrysanthemums*, *capsicums*, *scabiouses*, &c. Draw the strongest plants out of the seed-beds and plant them in this at the distance of four or five inches. Cover them from the weather by night, and shade them from the sun by day, till they have taken root. At the end of four weeks these plants will be fit to transplant into borders, &c. But they must be taken up with a ball of earth. This also will be a good opportunity to sow more seeds on this hot-bed, for a latter bloom of *ten-week stocks*, *India pink*, *Africas*, *French marigolds*, *chrysanthemums*, *marvel of Peru*, *China aster*, &c. But the bed must be sprinkled lightly with water, both before and after their coming up. And they will require a good deal of free air, as soon as above ground. But always cover them at night, and in bad weather. These will be ready to prick out in six weeks, and about the same distance of time they will be

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be fit to transplant any where with a ball of earth about their roots.

Sow *wallflowers*, *sweet williams*, *columbines*, *scarlet lychnis*, *stock gilliflower*, *campanulas*, *Canterbury bells*, *rose campion*, *hollyhocks*, *catchfly*, *French honeysuckles*, and other perennial and biennial flowers, in a bed of light earth three feet wide; the larger seed half an inch; the lesser a quarter of an inch deep, and to be frequently sprinkled with water in a dry season.

At the beginning of this month you may venture to transplant *sweet williams*, *carnations*, *pinks*, *Michaelmas daisies*, *rockets*, *bachelors buttons*, *asters*, *sunflowers*, *polyanthus*, and other such like perennial flowers, provided they be taken up carefully with a ball of earth, planted again with all expedition, and watered properly in dry weather.

Examine the pots of *perennial* plants, and where it had been omitted in *March*, dress them, i. e. loosen the earth as far down the sides as can be done without injuring the root: take out the loose earth, and fill up again with fresh mould suitable to the constitution of the plant. And then give each pot a gentle watering: which must be continued discretionally in dry weather.

We shall finish the work of this month with a word of advice about sticking the plants. Sticks must be placed in an upright form, and firmly in the ground near to all plants, that require support. These sticks should also be proportioned to the height of the plants. And having cleared away all decayed leaves, and injured shoots, tie the stem neatly to the stick, with a piece of bafs, cutting off the end thereof as close as possible.



The STOCK and PRODUCE of the FLOWER GARDEN,

In the MONTH of MAY.

TULIPS, stock gilliflowers, double wall-flowers, single scarlet lychnis, monk's-hood, pinks, sea-pinks, candy-tuft, sweet williams, Venus looking-glass, annual stock, periwinkles, fox-gloves, bulbous-rooted irises, mulleins, month-mulleins, anemonies, ranunculuses, Canterbury bells, columbines, larkspurs, poppies, pæonies, fraxinellas, spider-worts, cyanuses, martagons, lilies, orchis, marigolds, lupines, double globe-flower, daisies, feather-few, gladiolus, antirrhinum, valerian, irises, lily of the valley, double catch-flies, London pride, Solomon's seal, lady's mantle, lady's slipper, double rocket, bachelor's buttons, ragged robins, double saxifrage, honesty, scabious, and bird's-eye.

The WORK and LABOUR done in the FLOWER GARDEN in the Month of MAY.

The crocus and other bulbous roots having done blowing, this is the season to cut off their leaves close to the earth about the first week of this month, and if it be the third year of their planting, take them out; about three weeks after strip them of their offsets, and lay the mother-roots in a dry place for use, to be planted in *September* or *October*.

Top off the heads or seed-pods of tulips, which have done blowing: and in the course of this month some of the early blowers will shew that it is time to take

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take them up, by a decay of their leaves. Which must be carefully attended unto. And when taken up, spread the roots upon a mat in the shade and in a dry place till hardened and the mould drops from them. Then they will be fit to deposit in bags, &c. till *October* and *November*, when they must be planted.

Manage and cover *tulips* and *hyacinths* as directed in *April*; or in any other manner that shall be found more convenient. And take up *hyacinths*, whose leaves begin to decay. Then immediately commit them again to a bed of light earth, made with a ridge, laying each root sideways about two inches asunder in each row, and leaving the stalks and leaves out of the ground; but cover the roots, in order to swell and harden them, which will be done by the time the stalks are ready to drop off. This will be effected in four weeks or thereabout, when take out the roots, and treat them as you are directed for *tulips*.

The season for the blowing of carnations advancing, they now require more attention, and every art to assist them in their growth and beauty. Therefore stick those pots and plants that were not stuck in *April*, and in the manner there directed. Nip or cut off all decayed leaves, and earth up the pots, as also directed at the end of last month. Place the pots in a situation that will keep them from the heat of the mid-day sun; don't fail to water them every other day.

Sow *ten-week stocks*, *Indian pinks*, and *China asters*, in the natural ground, upon a small bed of light earth, before the 20th day of this month: and if they be properly refreshed with water in dry weather and sheltered from cold and sharp winds, they will be fit to transplant in *June*, and remain an ornament for your garden till the frost destroys them in the beginning of winter.

Sow also in the natural earth, and in the places where they shall be designed to flower, all those *hardy annuals* mentioned and directed to be sown upon hot-beds, last month. They will produce flowers in *July*, if properly and frequently watered.

Always

Always remembering to stick or support the nasturtiums, sweet-scented pea, and such tall, running plants, with sticks, trees, &c.

The hardier annual plants, such as the *Africas*, *French marigold*, *chrysanthemum*, the *marvel of Peru*, *Indian pink*, *China aster*, *ten-week stock*, *capsicums*, *ba'sams*, *amaranthu*, *scabiouses*, *egg plant*, *persicarias*, &c. may be planted out in the natural ground in dripping weather, after five o'clock in the afternoon: but they must be watered every other evening, should the weather prove dry.

But they who would have stronger flowers, may now draw them from the hot-bed, and deposit them one month in a nursery-bed of rich earth in the common ground, in rows at the distance of five inches each way: where they must be watered with judgment, and skreened from blights by night and the great heat of the sun by day. And at the end of four weeks these plants will be fit to transplant to any place, provided they be taken up with a ball of earth about their roots.

They also who desire to rear *cockscombs*, *tricolors*, *ba'sams*, *egg plants*, *globes*, and other tender annuals, with greater perfection, must now remove them into a fresh hot-bed about the 14th day of this month, having first potted every root singly by itself. Take these roots out of the seed bed with a ball of earth. Place it dextrously in the centre of a middle size pot with about four inches of earth at bottom, and then fill up the vacancy with fresh earth to within half an inch of the top, and water them moderately: a practice that must be continued every other day, while these pots stand plunged in the earth upon this bed under glasses. And observe to raise the frame gradually as the plants increase in height.

Sow *stock gilliflowers*, *wall flowers*, *carnations*, *pinks*, *sweet williams*, *co'umbines*, *scabiouses*, *Canterbury bells*, *hol'yocks*; and many such like perennial and biennial flowers may yet be sown before the 12th day of this month, to flower next summer. They must

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must be sown in light ground, well shaded, and clear from weeds. And in order to do this work in the best manner, dig the ground neatly : let it be well broken : rake the surface very even. Divide it into beds of three feet wide : turn off half an inch of the earth from the surface with the back of a rake quite up to the edges. Then scatter the seeds upon the surface carefully : and with the teeth of the rake draw the earth from the edges over the seeds according to art.

As their propagation by slips is the only way to increase the true *bloody wall-flowers*, now is the time to begin this work : after this manner, in a moist or cloudy day, slip off shoots from the mother plant from two to five inches long. Strip off all the leaves half way at least up from the bottom of those slips. Twist the stalk a little, or slit it with a pen-knife about an inch up in the middle, and then twist it, and plant it in a shady border up to the leaves, about five inches asunder : and then if care be taken to water them properly, they will be rooted and fit to transplant about the end of *September*.

If you would have *tuberoses* to blow in *autumn*, plant them now singly in small pots of light earth plunged to the rims in a hot-bed, under glasses. Let out the steam every day : and water them very sparingly till the roots begin to push. Then water thrice a week, and so manage the glasses and frame, as to give them height to grow in, and air to keep them in health.

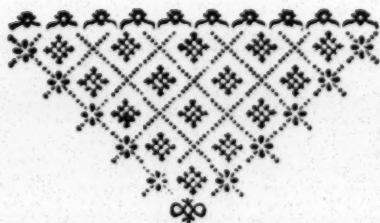
If you have a hot-house or stove, roots planted in pots as above, will be brought to perfection with less trouble, if the pots be plunged to the rims in the bark.

As the *double scarlet lychnis*, and such like fibrous-rooted plants, may be propagated by cuttings of the young flower-stalks ; do this work in the third and fourth week of *May*, after this manner. Cut off the young flower-stalks close. Then divide them into lengths containing three or four joints : and having planted each length, with two joints, in a shady place
and

and in a rich light earth, close the earth gently about them, and give them water moderately.

Remove seed-pots or boxes of *auriculas* and *polyanthuses* into the shade: keep them free from weeds: leave them open to the morning sun, and give them a little water in dry weather. Remove also the *auricula* plants, that have done blowing, to some clean level spot, and to a like situation: clean them from decayed leaves, and water them gently.

Use your endeavours to destroy weeds and all manner of vermin, that appear in the land or pots. Mow your grass once a week. Keep the gravel walks clean of weeds, and roll both once a week, and always after a shower of rain besides. If any plants want sticks, do it as directed in the last month.



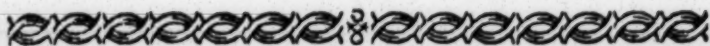
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*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of JUNE.

AFRICAN and French marigolds, convolvulus, amaranthus, Venus looking-glasses, and navel-wort, candy tuft, lark-spur, annual stock, stock gilliflower, double scarlet lychnis, rose campion, campanulas, sweet williams, fox-gloves, pinks, sea pinks, mulleins, moth-mulleins, periwinkle, cyanus, lily, martagons, monk's-hood, sun-flower, holy-hocks, nasturtium indicum, gentian, scarlet beans, Virginian spiderwort, sweet sultan, poppies, horned poppies, carnations, valerians, double feverfew, orchis, lupines, China pinks, female balsams, virgin's bower, sea ragwort, antirrhinum, everlasting, sweet-scented, and Tangier pease, willow-wort, veronicas, blattarias, xeranthemums, loose-strife, chrysanthemums, scabious, hieraciums, French honey-suckles, valerians, ox-eye oriental, helianthemums, and several other annuals.

The WORK and LABOUR done in the FLOWER GARDEN, in the Month of JUNE.

Take up the *crocus* roots, that have been three years in the ground, and *snow drops* and such other bulbous roots as have done blowing, whose leaves are decayed, and require to be taken out of the ground every year: such as *tulips*, *jonquils*, *narcissuses*, *crown imperials*. You must do this work when the weather and earth are very dry. Then separate all the off-sets: clean

clean the old roots from dirt, let them lie a few days spread on a mat to dry and harden, and then lay them up in bags or boxes in a dry place for use. You may, if thought convenient, plant the off-sets immediately in a fresh piece of ground.

Take up *anemony* and *ranunculus* roots, as soon as their leaves begin to decay. But do this with great circumspection: for these roots, especially their small off-sets, appear so like to earth itself, that they frequently escape even a diligent eye. Dry them as directed for *tulips*, &c. and keep them in a dry place till the season for replanting of them.

Should there remain any *hyacinths* in the beds, take them up in the beginning of this month, and also take up the *hyacinth* roots from the bed, where they were deposited last month: and preserve them, as directed for *tulips*, till they be replanted in *September* or *October*.

Plant out *chrysanthemums*, *Africas*, *amarantuses*, *persicarias*, *marvel of Peru*, *balsams*, *Indian pinks*, *China asters*, *capficums*, *ten-week stocks*, &c. But this must be done to the root. Close the earth well about the root and stem, and water these plants not only immediately after they are transplanted, but continue to refresh them with water, and shade them from the heat of the sun till they have taken root: and if they run up higher than the stem will be able to bear the head, you must support them with sticks, as has been directed.

Plant out *cockscombs*, *tricolors*, *balsams*, *stramoniums*, *globes*, and such other tender annuals as are come to their growth, from the frames into the open ground; if in pots, set them in open air, about the middle or last week of this month: remembering always not to let them droop for want of moderate waterings, when the sun is off.

Transplant *cyclamens*. For when the leaves are decayed, take up the roots, part them, and replant them,

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either in pots of fine mould, which may on occasion be removed under shelter, and in a border under a warm wall, where they may be conveniently covered in winter : and they will begin to flower in *February* or in the beginning of *March*.

Transplant *wall-flowers*, *sweet williams*, *columbines*, and *stock gilliflowers* (that were sown in *March* or *April*) into a nursery bed, six inches asunder : and water them well. And if you transplant them into borders, &c. at the latter end of *September*, they will adorn the garden very handsomely next year.

The same practice is to be used with *hollyhock*, *tree primrose*, *fox-gloves* and *campanulas*, *Canterbury bells*, *rockets*, *rose campion*, and such perennial plants as were sown in the spring.

Continue to propagate the *double scarlet lychnis*, and other fibrous-rooted plants, in the way directed in the month of *May*.

The *carnations* take up a great deal of the gardener's time in this month. For *carnations* and *pinks* ; I mean *whole blowers*, whether *stock*, *bezars*, *pickatees*, or *painted ladies*, that have been raised from seed this same year, will about the middle of *June* be ready to transplant into the nursery-bed, about three feet and a half broad, and well prepared. This bed will admit of six rows of plants, at the distance of six inches between the plants. And if care be taken to water this plantation at proper times, when wanted, these plants will be strong enough to be planted out in borders, &c. where they are to flower next year. Or keep them in a separate bed, planted one foot asunder till they blow, and then you will see which are double and worth preserving.

It is a good way to sow seed to raise new flowers. But when you have obtained a good flower of this class ; the best method to preserve and to propagate it is to lay it down in this manner.

From the middle of *June* till the end of *July*, is the best season to lay down carnations, or to propagate them

them by layers. For this purpose, provide a basket of fine mould, a sharp pen-knife and a quantity of small hooked sticks, with which birch broom will furnish you at any time. Clear the weeds and every other nuisance about the plant: stir up the surface of the earth a little, and then lay as much of the fine mould from the basket, as required to raise the earth for the reception of the shoot to be laid down. Being thus prepared, strip all the shoots of their leaves intended to be laid, as far up as within two inches of the top, and crop the top leaves also a little. Then with the pen-knife make a slit from a joint in the under side, that shall run about half way up to the next joint, which you must lay immediately in the fine earth, opened for that purpose, and secure or peg down fast with one of the crooked sticks, in such a manner, as to keep the head of the shoot almost upon an upright, and with the slit open in the earth: and when all the shoots of one plant are thus laid down, cover their bodies with the same sort of rich mould, and settle it with a gentle watering, which must be frequently repeated with discretion till the layers shall be rooted, which will be in six weeks or thereabouts. Then cut them singly with a sharp pointed knife from the mother root, and plant them either in small pots, two together, or deposite them in a nursery-bed till wanted.

Some gardeners prefer propagation of *whole blowers* and *pinks* by cuttings and by piping: who, between the middle of *June* and *July*, take the head of a shoot between the tip of the finger and thumb of their right hand, and holding the lower part of the shoot with the left hand, pull the head of the shoot gently, and it will readily part and come out of the socket, about the third joint from the top: and if this piping have two joints, it will be sufficient. Then trim their tops pretty short, cut off all jags from their bottoms, and plant them one by one immediately in a bed or pot of rich earth, worked very fine, thrusting them gently near half way in the earth, at about

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two inches from each other, without making a hole for them: and this done give them a gentle watering, and cover them with glasses: or shade them from the sun, till they have taken root; and water them frequently.

Pinks of all kinds are propagated by slips of five or six inches long, put into the ground within an inch and half of the top, in the months of *March, April,* or *May*: which will thrive very well if watered when needful.

About the middle of this month also *carnations* begin to break their pods, and will require particular attention. The large flowers, which burst, must be assisted in their opening, in order to a more regular spreading of the petals, by cutting the flower-pod a little way open in several places, where nature seems to want strength. The time to do this work should be as soon as you see the pod begins to crack. The instrument used for this purpose is a small pair of narrow pointed scissars. And the manner to perform this work is to cut the pod regularly a little way between each division of the pod from each indenting at the top: and when you observe nature to make another effort for the flower to burst through, then cut the pod down a little more in every division of the pod; always bearing in mind not to cut too low, but to leave so much of the bottom of the pod entire, as shall be sufficient to keep the flower-leaves together, and handsomely spread upon a piece of white paper or parchment cut round and fixed under the pod for that purpose.

Those carnations as are in pots ought not to be covered till they blow; and then it will be necessary to defend them both from heavy rains and very hot sun; always keeping the earth about them a little moist; and tied gently to the stick in several places, to preserve them from breaking.

Lay down *double williams* in the same manner and about the same time as directed for carnations.

Place auricula plants in a clean shady place, free from trees and bushes, visit them frequently, to keep

them clear of dead leaves, weeds, &c. and to water them in dry weather.

Cut down the perennial plants that have done flowering, and trim the bottoms of *African French marigolds*, *chrysanthemums*, &c. so as to leave twelve or fifteen inches clean stem from the bottom. Whereby the plants will grow more handsome with bushy heads, and the flowers will be considerably larger. And in all others cut off straggling and broken and decayed shoots, leaves and flowers.

Forget not to weed. If you don't destroy the weeds when young, either by hand or hoe, they will presently get the upper hand and destroy your flowers.

About the middle of this month, if the weather be moist, cut box edgings so as to leave them three inches high, and two inches thick.

Cut off the luxuriant shoots of flowering shrubs and evergreens. And water the box well after it has been trimmed; and seedlings of all pots, and all plants contained in pots: giving most water to those in the smallest pot.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the Month of JULY.

CARNATIONS, amaranths, amaranthoides, convolvuluses, African and French marigolds, asphodel tuberosa, cardinal's flower, double scarlet lychnis, campanulas, virgin's bower, sweet sultan, marvel of Peru, eagle-flower, China pinks, female balsams, sun-flower, hollyhocks, fox-gloves, scarlet beans, poppies, gentian, fraxinellas, nasturtium indicum, veronicas, nigellas, lupines, spider-worts, stock gilliflowers, golden rod, fritillarias, apocinums, capsicums, everlasting flowers, chrysanthemums, ragged robins, linarias, jaceas, anthora, acanthus, lavateras, globe thistle, bupthalmums, leucanthemums, xeranthemums, mallows, soap-wort, eupatoriums, and many late sown annuals.

The WORK and LABOUR done in the FLOWER GARDEN in the Month of JULY.

This is the month for *carnations* or *gilliflowers*: they are in their prime. The choice sorts require great attendance and care, to prevent them from opening irregularly, and to preserve their bloom. Cut the pods as directed last month. Strip off the under shoots or blossoms if you would have a large fine flower at top; and keep them sheltered or shaded from the sun and weather, either on a stage, which is contrived more according to every ones fancy, than any certain rule to go by: or fix a piece of thin deal

about nine inches square, with a hole near the edge, upon the top of the stick to which the flower is tied. Some have bell glasses capacious enough, or glass shades made with lead, to answer this purpose. Neither must you forget to water them once in forty eight hours.

The caranations and whole blowers that were laid down in *June* will be ready towards the end of *July*, to be cut off from the mother plant, and disposed of either in pots or borders, in a shady place. In doing which, cut off the stalk at the bottom close to the slit part of the layer; and cut the top of the leaves, and plant them immediately, and water them moderately till they shall strike root. Neither is it too late to lay down more carnations, whole blowers and williams: which may be done any time in *July* in the manner directed in *June*. If any pegs, used to keep down the layers, happen to start, they must be immediately supplied, or the layers will perish.

Now bring out the remaining part of your annuals from the seed and nursery-beds, and plant them, and manage as directed in last month. When the *cocks-combs* and *tricolors* and other annuals in pots are brought out into the open air, stir the earth a little at the top, and add a little fine earth: and if not done before, support each with a handsome stick: and then water them with a rose over the head of the plant, which will wash them from dust, and refresh them.

Visit the *auriculas*, as advised in *June*. And plant out the seedling *auriculas* and *polyanthus* from the seed-pots or beds, in a shady spot of good soil, well fabricated. Plant them at the distance of four inches each way, and water them immediately, and every three or four days during the heat of the summer.

The same work is to be repeated with all other seedlings of the biennial and perennial kinds, such as *French honeysuckles*, *hollyhocks*, *wall flowers*, *williams*, &c. only with this difference, these require more room, and if planted in borders or beds must stand six inches asunder. And if they have proper care

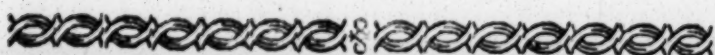
care taken of them by watering and clearing, these plants will be fit to transplant into borders in *October*.

In the beginning of *July*, the scarlet lychnis and such kind of plants may be propagated by cuttings, as directed in *June*.

Take up crown imperials, irises, narcissuses, and all bulbous-roots whose grass is withered, and manage them as directed in the foregoing month. But it is the best way to plant the off-sets from them in a nursery-bed, there to remain a year or two to get strength.

Trim flowering shrubs and evergreens where needful. Stake and tie up all plants, that require support: destroy weeds: clip hedges, and box edgings, if not done in *June*: keep the gravel walks neat, mow the grass walks and plats, and cut the edges. And having cut down all the stems of decayed flowers and shrubs; sweep them quite away, that no litter disoblige the eye in your pleasure garden.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the Month of AUGUST.

CAarnations, fun-flowers, hollyhocks, Guernsey lily, tuberoſe, cardinal's-flower, female baſams, marvel of Peru, capſicums, everlaſting flower, yellow crocuſes, cyclamens, convolvuluſes, African and French marigolds, ſtarworts, amaranths, amaranthoides, nigella, ſcabious, ſweet ſultan, naſturtiums, linarias, ſtock gilliflowers, auriculas, polyanthuſes, golden rods, mallows, jaceas, hieratiums, geraniums, xeranthemums, veronicas, globe thiſtles, helianthemums, alyſſons, China ſtarworts, poppies, larkſpurs, candy tufts, chryſanthemums, capſicums, eringo, virgin's bower, and many other ſorts of late ſown annuals.

*The WORK and LABOUR done in the FLOWER
GARDEN in the Month of AUGUST.*

You may continue to lay *carnations*, *whole blowers*, *gilliflowers*, and *double ſweet williams*, for a few days in the beginning of this month: and manage this work as directed in *June*.

Complete the tranſplanting of ſeedling *polyanthuſes*, and *auriculas*, as directed laſt month.

Now is alſo the time both to ſow *auricula*-ſeed and to ſhift the old roots into the freſh earth. Sow the ſeeds of auriculas and polyanthuſes alſo in large pots of light earth, about the 20th of this month, pretty thick, and cover them with the ſame, about a quarter of an inch, and place them ſo as to receive only the

the morning sun, till the end of *September*, when they will require a full meridian.

Having prepared a compost of pasture mould, sheeps dung, and willow dust, of each an equal part, which has had time to rot, and has been well mixed with a little drift sand, turn out the auricula, and having picked off all the decayed leaves, and with a sharp knife trim'd off all the fibres from the root, and parted such pieces thereof as will separate with sufficient root to preserve its vegetation, cut away the decayed, dead, rotten, or cankered parts of the root, and set each root in a pot of fresh compost. Fill up the pots with the compost. Set them in the shade, or under cover, and water them gently in dry weather, and there is no fear of their succeeding.

This is the proper time to propagate the fibrous-rooted perennials by slipping and parting the roots in the same manner. Take the whole root out of the ground, and put it so, as to preserve roots or fibres to every slip or plant. Cut off the tip end of the root, and trim every plant of dead and broken leaves. Then plant them, and manage them as directed for auriculas.

If you have good assortments of carnation layers, it is adviseable to take them from the mother root, as directed in the last month, if not done before, and plant them by pairs in halfpenny or penny garden pots full of good earth. Place these pots under cover, or in a shady situation, till the plants have taken root: then expose them more to the sun and weather till the end of *October*; when it would be adviseable to defend these plants against the severity of the approaching winter, by burying or plunging these pots into a bed of dry earth and coal ashes, close together up to their rims: and cover them with frames and glasses, or with hoops and mats, to be put on at no other time, but when the heavy rains, snow or frost shall make it necessary, there to remain till *March*: when they may be returned with a ball of earth into the pots for blowing at the proper season.

Remove the *white lily*, if the leaves are decayed, and the *crown imperials*, *martagons*, and other bulbous-roots. Take away their spawn, and plant the old roots immediately, or they may be kept dry and planted in *October*.

Deal with the off-sets as directed in *July*.

Transplant seedling *walls*, *williams*, *scabioufes*, and other perennial and biennial plants, that still lie behind in the seed-bed: observing to do this work in dripping weather, at six inches distance from each other, and water this plantation with discretion, and they will be ready to move into proper places for blowing in two months.

This month furnishes most of the flower-seeds. Gather the seeds of such flowers as are ripe in a dry day. Cut off the stalk from the root gently, deposite them upon a mat in an airy place exposed to the sun: and when they are well hardened, rub out the seed carefully upon a large sheet or two of white paper, and preserve them for use in paper bags, &c.

Sow the seeds of *ranunculuses*, *anemonies*, and spring *cyclamens*, in the manner directed for *auricula*-seed. And after the 20th day of this month sow the seeds of *tulips*, *hyacinths*, *martagons*, *narcissuses*, and other bulbous roots, in boxes about fifteen inches broad, and twelve inches deep, filled with fine light earth, made very level. Sprinkle the seed moderately thick, and cover them with half an inch of the same earth. Set these seed-boxes in a shady place, till required to move them into the heat of the sun about *Michaelmas*. However, some sow these seeds in beds of light earth, about three feet broad in a warm situation. If the winter proves severe, cover these beds and the boxes also with dry litter. When the plants begin in *March* to appear, refresh them often with water, and keep them clean from weeds.

These plants in *July* will cast their leaves. Then having cleared the surface of all kind of rubbish and weeds, refresh the plants with a little fine earth strewed over the bed or boxes; and they in the second summer

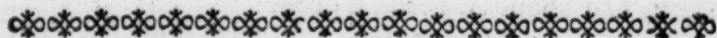
summer will be ready to transplant into a nursery-bed in rows four inches asunder, and each root two inches apart, and about two inches deep.

The same process must be used with these seedlings next summer, and so every year till they are brought to a state of perfection, and condition of flowering, and then they are to be managed as other bulbous roots are. To be sure it will be a long time before you can raise flowering plants by this method. But the variety of new beautiful flowers, obtained by this means, makes ample amends to the gardener.

Let dry weather put you in mind to water at proper times all annual and perennial plants.

Trim the *French marigolds*, *Africas*, &c. as directed last month. Root out weeds from all pots: mow grass-plats, &c. Keep gravel walks clean from weeds and litter, and well rolled: clip hedges: and cut box and thrift.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the Month of SEPTEMBER.

A Maranthus, Guernsey lily, cyclamens, colchicums, sun-flower, hollyhocks, tuberoses, double violets, African and French marigolds, female balsams, antirrhiniums, marvel of Peru, nasturtiums, convolvuluses, saffron crocuses, spider-worts, poppies, lark-spur, annual stocks, candy-tuft, Venus looking-glass, asters of several kinds, auriculas, polyanthus, China pinks, stock gilliflowers, carnations, chrysanthemums, scarlet beans, capsicums, lupines, golden rods, double soapwort, tree primrose, snap-dragons, ox-eye, helianthemums, campanulas, xeranthemums, jaceas, lavateras, elichrysums, oriental mallows, &c.

*The WORK and LABOUR done in the FLOWER
GARDEN, in the Month of SEPTEMBER.*

It is not too late to sow the seed of *ranunculuses* and *anemonies*; which must be done as directed in *August*. The same may be done with *auricula*-seed, in the manner already laid down for that work. Neither is it too late to sow the seeds of bulbous roots, as directed last month.

Slip and plant the *rose champions*, *catch fly*, *scarlet lychnis*, *campanulas*, and such like fibrous rooted plants, as directed in *August* for these plants.

Part also the roots of *polyanthuses*, *London pride*, *samomile*, *daisies*, *gentianella*, *saxifrage*, and plant them in a shady border, about six inches asunder.

In

In the beginning of this month part the *double rocket*, *bachelor's button*, and *feverfew*, in the same manner, if not done before. And towards the end of the month transplant most sorts of hardy shrubs and trees, and water them as soon as they are planted.

Prepare your ground for *tulips* and *hyacinths*, in this manner. Trench a bed of four feet wide, a good spade and one shoveling deep. Let this bed lie to settle fourteen days before the roots are planted. Lay the bed in a rounding form, highest in the middle. Divide the breadth into five rows, allowing nine inches between row and row. Plant them six inches from each other in the rows, and with the crown of every root four or five inches deep below the surface of the earth, in the fourth week of this month.

At the same time prepare beds for the roots of *anemones* and *ranunculuses*; let them be about four feet wide, laid rounding. Plant them six inches distant in rows, and two inches deep.

Examine *auricula*-pots. If the weather be dry, they will require moderate watering. On the contrary, you must be very cautious how you let much rain or wet fall upon them: for nothing will rot and destroy *auriculas* sooner. Some to prevent too much wet lodging upon them and in the pots, lay them on one side, which is a good way, and must be done, where there is not the convenience of a cradle made with hoops, and covered with mats or canvas, to cover them all from wet or snow.

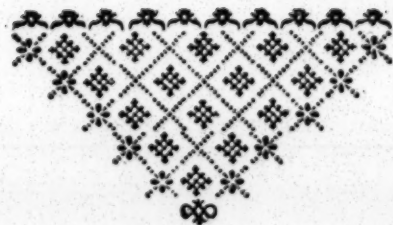
If any *carnation*-layers remain to be cut off, perform that work as directed in the foregoing months.

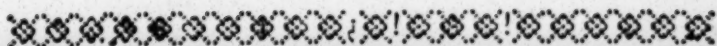
Towards the latter end of *September* transplant any biennial or perennial plants in dripping weather, from either the seed or nursery-bed. But take them up with a ball of earth. Close the earth well to the roots, and water them immediately.

Transplant *pionies* and other knotted rooted plants, into places where wanted. And plant box after the middle of the month; either by slips, or by taking it up and separating the roots and trimming them. But
when

when the box is planted in a neat, close, thin edging, it must be well watered, and it will take root in a month's time.

Continue to trim flowering plants: clear away decayed stems and leaves. Pull and hoe out all weeds. Mow grass walks and plats, and keep the edges neatly cut. Roll gravel walks, and keep them clear of weeds and worms. Clip hedges neatly. And finish the month with digging such borders where the plants have done flowering; which will destroy the weeds effectually, and be ready to receive the plants and roots, any time next month.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of OCTOBER.

SINGLE anemonies, and polyanthus, carnations, stock gilliflowers, asters, antirrhinums, amaranthus, double violets, saffron crocuses, colchicums, cyclamens, African and French marigolds, marvel of Peru, single wall-flowers, capsicums, heart's ease, golden rods, China pinks, China starworts, linarias, tuberoses, Guernsey lily, female balsams, convolvuluses, lupines, scabiouses, Venus looking-glass, and navel-wort, jaceas, jacobæas, hawkweeds, sweet sultans, &c.

*The WORK and LABOUR done in the FLOWER
GARDEN, in the Month of OCTOBER.*

The gardener must not fail at the beginning of this month, to secure *auriculas* and *carnation*-layers from the bad weather now expected, if he has not done it, as directed in last month.

If there be any fibrous and knob-rooted plants, that have stood for years, and grown disagreeable by their bushiness, such as the *Michaelmas daisy*, *everlasting sunflower*, *campanulas*, and such like perennial plants, now is the time to take them up, and to propagate them by dividing every root into several parts in the manner directed in the month of *August*. The best of the slips to be planted again immediately in the border; the smallest in nursery-beds as stock for the succeeding year.

Continue

Continue to plant *tulips* and *hyacinths*, *ranunculuses*, and *anemonies*, as directed in the foregoing month.

Plant *crocuses* and *snow drops* six inches apart in a row, about six inches from the box, or border, or next the walks, and two inches and a half deep.

Plant also *narcissuses*, *jonquils*, and other bulbous roots taken up this summer at nine inches asunder in rows. But plant crown imperials, orange lilies, maragons and other tall plants, at least twelve feet distant, thus; begin with a *crown imperial*, then two or three feet distance from that, put in a *martagon*: then at the same distances an *orange lily*, a *white lily*, and then three feet from that begin again with the *crown imperial*, and so proceed till you come to the full length of the border. So that each sort will stand twelve feet distant from one another.

Transplant *rose champions*, *sweet williams*, *catchfly*, *campanulas*, *lychnidias*, and *lychnis*, *rockets*, *feverfew*, *bachelors buttons*, near the middle of the border, *double walls*, *double sweet williams* and *rockets*, *stock gillflowers*, &c. in pots, that they may be removed under shelter in bad weather.

Slip and plant *polyanthus*, and set *double daisies*, *camomile*, *violets*, *hepaticas*, and other low growing fibrous-rooted plants, about fifteen inches from the edge of a border.

In this month, and as soon as frosts come on, remove all the seedling flowers in boxes or pots, into a warm situation, where they may enjoy a full sun all winter, and be screened from cold and cutting winds.

As this is accounted the best season for planting box edgings, observe these instructions. Stretch out the line along the edge of the bed or border: and let that be made up all the way pretty firm and full according to the line. And then with a spade, and on the side of the line next the walk, cut a neat trench about six or seven inches deep, making the side next the line perfectly upright. In which trench plant the box, so near, as to form one continued edging. And where

where it happens otherwise, you must cut it even in the sides, and level at top with a pair of garden shears.

Plant *laburnums*, *syringas*, *althæa frutex*, *jessamines* and other hardy flowering shrubs, at such distances as they may not choak one another, and please the eye.

Cut away all the luxuriant shoots, that were made last summer in *rose trees* and *honeysuckles*. And take away all suckers arising from their roots.

Most sorts of flowering shrubs are propagated by suckers, which taken up at this season, or soon after, will in two years grow into handsome plants.

Honeysuckles and many other hardy shrubs and trees are also propagated from cuttings chosen from the last summer's shoots. See the *Shrubbery*.

Mow the green walks and lawns as low and even as possible, and clear them from worm casts.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of NOVEMBER.

SINGLE anemonies, gentianellas, polyanthus, stock gilliflowers, double violets, striped lily, double colchicums, heart's-ease, some starworts, two sorts of golden rods, perennial sun-flowers, leadworts, &c.

*The WORK and LABOUR done in the FLOWER GAR-
DEN in the Month of NOVEMBER.*

Take care to shelter the choicest of your *tulips*, *hyacinths*, *ranunculuses*, and *anemonies*, from heavy rains, sharp frosts, and snow, which will destroy the roots or greatly injure them.

Keep gravel walks clear of weeds, moss, and all sorts of rubbish, and roll them well once a week in a dry day. This will keep them in better order than the modish custom of digging them up for the winter. Which has no other use, than to save the gardener some trouble.

Also poll and roll grass-walks once a week, on a dry day.

Still continue to transplant *roses*, *syringas*, *honeysuckles*, *laburnums*, and other hardy flowering shrubs, in the manner as has been directed. And you may prune off their rambling and irregular branches at the same time; and having dug up the earth a spade deep about them, take up their suckers and plant them in the nursery for increase.

If

If the seedling flowers and the pots of *auriculas*, have not been secured and situated as directed in *October*, it must be done now.

Continue to plant *tulips*, *ranunculuses*, *anemonies*, *crocuses*, *narcissuses*, and other bulbous roots, as directed in *October* and *September*.

And if any perennial plants be left unplanted, follow the directions already given for that purpose.

Clear away all decayed annual plants, and the stems and decayed flower-stalks of perennial plants. Cut up the weeds with a Dutch hoe; and then furnish the borders with such perennial plants as shall be found wanting.

Prepare the ground for receiving the more tender plants or kinds of shrubs in the spring. And turn up the heaps of compost intended for your flowers next year.





*The STOCK and PRODUCE of the FLOWER
GARDEN,*

In the MONTH of DECEMBER.

SINGLE anemonies, stock gilliflowers, single wall-flowers, primroses, antirrhiniums, snow-drops, spring cyclamens, black hellebore, winter aconite, polyanthus, narcissuses, helleboraster, Tangier fumitory, and the narrow-leaved golden-rod.

*The WORK and LABOUR done in the FLOWER
GARDEN in the Month of DECEMBER.*

The chief attention of the florist in this month is to do all in his power to prevent the damage and mischief, which may arise to his stock from the inclemency of the season. Severe frosts, and cutting north-easters, great snows and heavy rains will destroy the whole produce of his former industry, if he leaves them exposed to their ravagement. Therefore keep the *auriculas* and *carnations*, *ranunculuses* and *hyacinths*, the *tulips* and *anemonies* under safe cover, as has been directed; sink the pots of seedlings, and of hardy flowering shrubs in pots, up to the brim in a warm border, and cover the surface with litter in a hard frost. Lay mulch, or a good thickness of long litter, about the roots of new planted shrubs.

Take a knife and prune all trees and shrubs that stand in need thereof, as directed in the former months. And take care to plant all suckers in the nursery for a supply.

If

If the weather proves open, you may still plant the hardy kind of flowering shrubs.

Keep the walks in order : prepare compost for your flowers ; and continue to prepare the ground, if the weather will permit you to dig for planting.





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